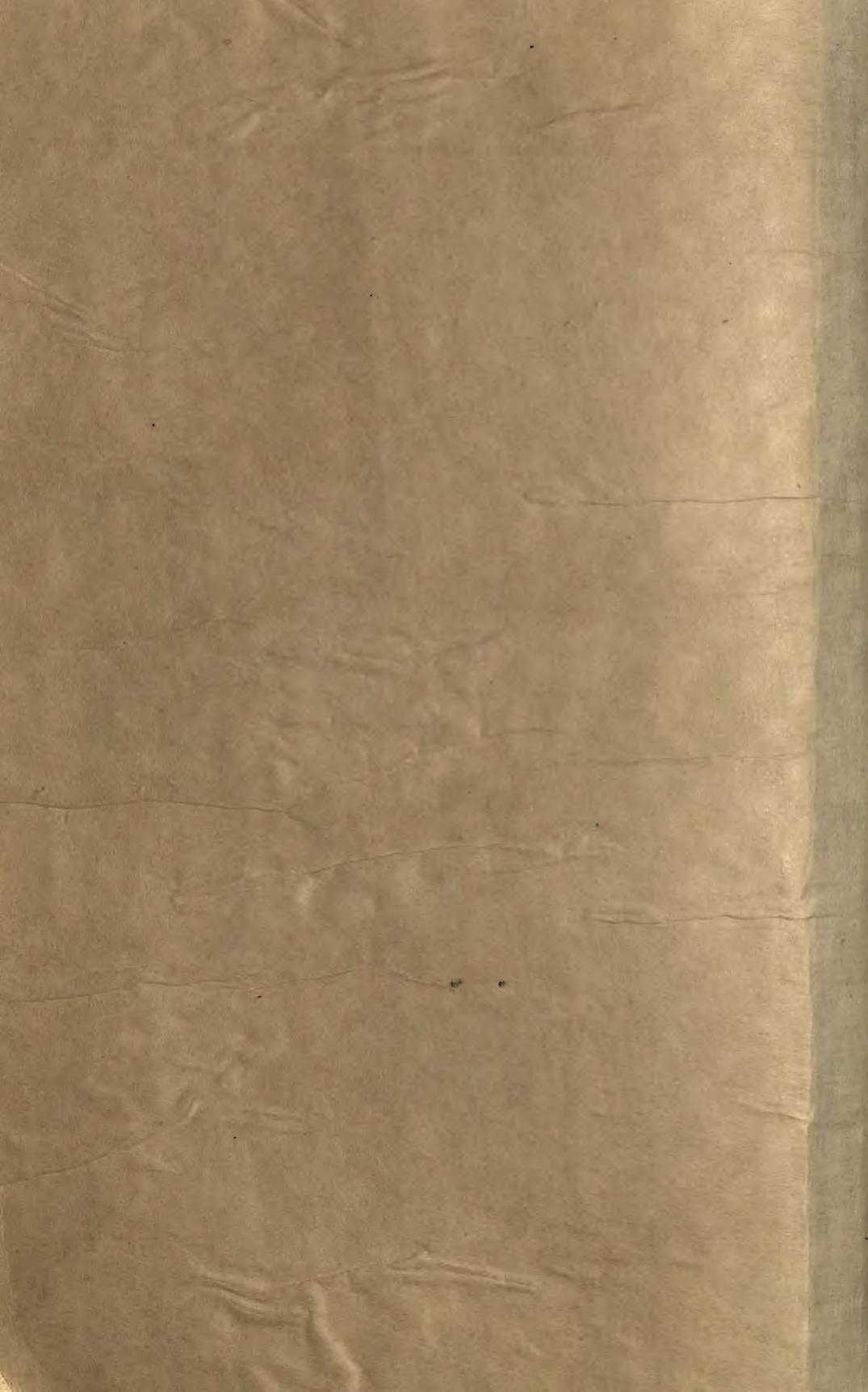
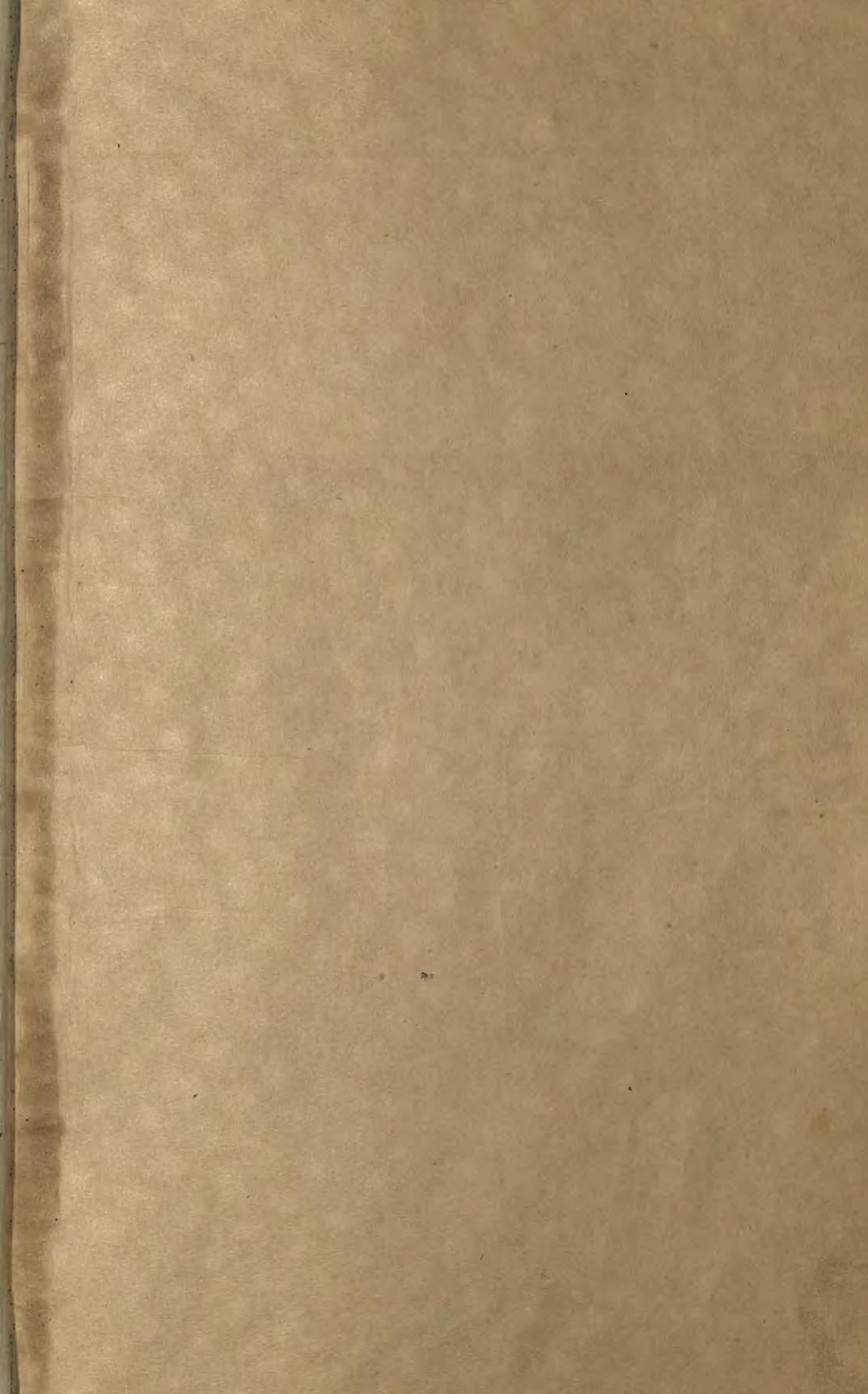
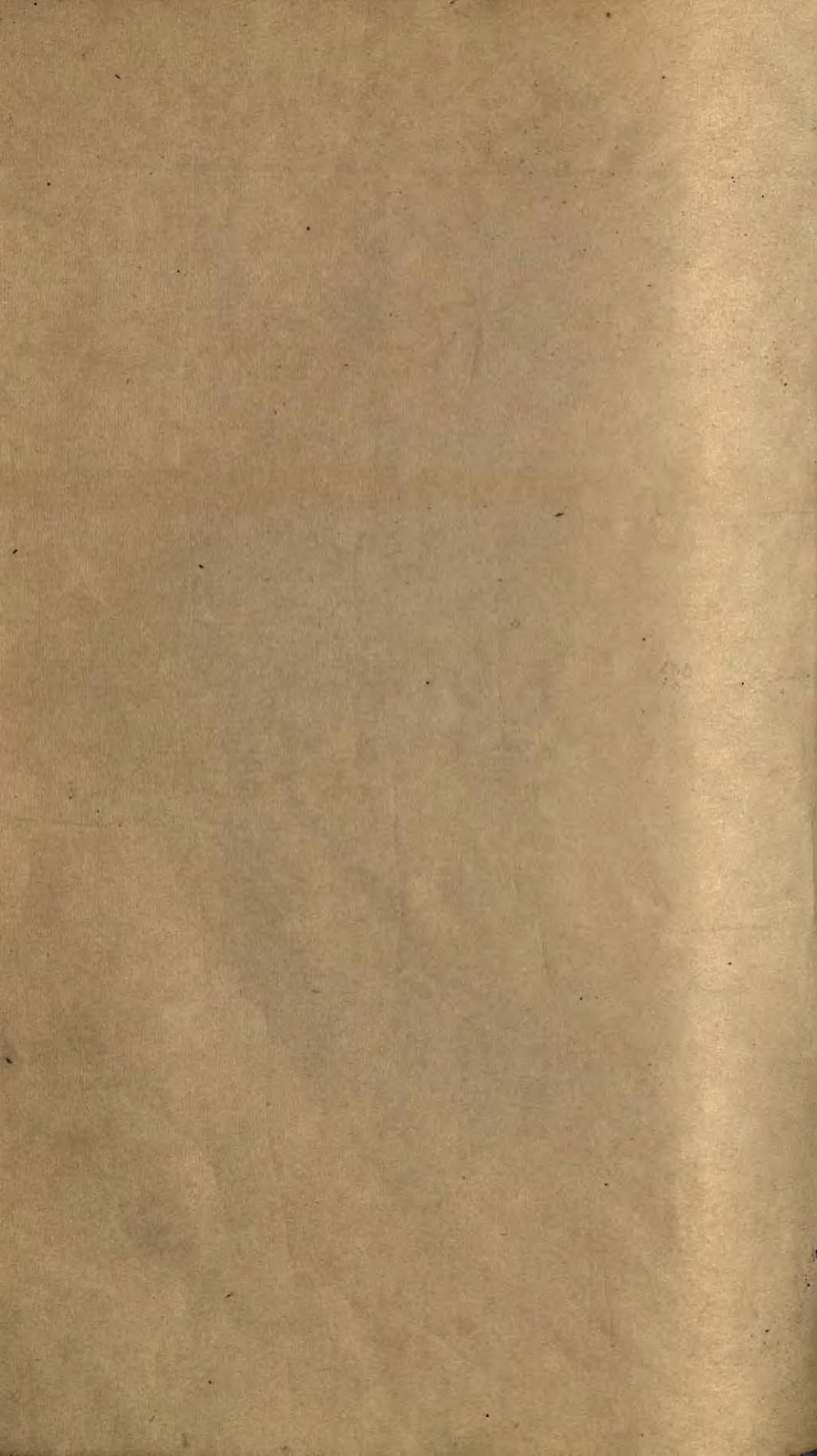


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Harvard Educational Review

VOLUME THIRTY-THREE

NUMBER ONE

WINTER 1963

*The Intellectual Climate
of College Environments*

G. G. STERN

*The Problem of Leadership
in the University*

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Some Problems and a Proposal*

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Socratic Teaching?

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From the Editorial Board

The new cover and changes in both the design and content of the HARVARD EDUCATIONAL REVIEW perhaps require a word of comment.

Not that they need any elaborate justification. Nine years, we felt, was not too short a time for the cover of a journal to have outlived its sharpness and contemporaneity, and—though familiarity so often breeds content, as much among readers as editors—we judged, quite simply, that it was time for a change. We trust that the crisp and pleasant appearance we now present will itself speak eloquently in our defense.

Having decided upon a new design for the cover, it was necessary to make appropriate changes in the format of the inside of the book as well. As part of the process, the editors' introductions to articles have been compressed, and the brief biographies of the authors are printed together on a separate page entitled "Notes on Contributors"—a practice we have previously followed only in our Special Issues.

Since change was in the air, it seemed fitting that we should undertake a review of editorial policy, and in the past weeks all aspects of our work have been brought under scrutiny. The most visible product of this examination is the addition of two new features which will enhance the intimacy and liveliness of our contribution to educational debate.

A new section entitled "Discussion" will appear from time to time, bringing to you in a brief and digestible form several informed opinions on a topic

of importance. The Discussion section will vary in character: a number of position papers, perhaps; or a collection of reviews of a significant book (the first Discussion, to be published in our next issue, will be addressed to Robert Ulich's recent book, *Philosophy and Education*); or a statement, reply, and rebuttal: whichever seems to the editors to be the most suitable vehicle for the presentation of the dispute.

And, beginning in this issue, we will publish letters from readers under the title, "To the Editors." Into this section will be absorbed the valued "Notes from Readers" which have appeared, in our opinion, all too infrequently in the past. Our purpose in altering the style and format of this feature of the REVIEW is to provide a more inviting forum for your comments on the articles and reviews we publish. It was necessary to solicit several of the letters (from Daniel Callahan, Walter Clark, and Russell Davis) which appear in this issue; now that the ball has been set rolling we hope that you will provide the momentum for it to continue. Just as the Discussion section will give the Editorial Board an opportunity to provide some direction to the debate on selected issues in education, so will "To the Editors" enable readers to pursue, briefly but pointedly, any of the significant views and findings of our contributors.

Otherwise, our editorial policy remains the same: to offer a discriminating, scholarly, and, on occasion, provocative collection of new literature in education.

Commissioner Francis Keppel

The appointment of Francis Keppel, Dean of the Harvard Graduate School of Education, as United States Commissioner of Education, deprives the HARVARD EDUCATIONAL REVIEW of its most valued patron.

As Dean, Mr. Keppel was formally responsible for the publication of this journal. It is a measure of his imagination, wisdom, and restraint, that he chose to exercise this responsibility by constituting the Editorial Board entirely of students of the School, and by guaranteeing to each Board complete liberty of decision and action. Under this most generous of policies the REVIEW has achieved enhanced stature in the field and a rapidly increasing circulation.

With this tribute the HARVARD EDUCATIONAL REVIEW bids farewell to an admired friend and counsellor.

This research attempts to observe relationships between the psychological environment of universities and their organization and administration. The study deals with responses of more than 1000 students in 23 colleges.

GEORGE G. STERN

Syracuse University

Characteristics of the Intellectual Climate in College Environments*

The psychological environment may be defined as the complex of stimuli that press upon the individual and to which his behavior constitutes a response. In a sense, these pressures are unique and private insofar as the view that each of us has of the world must be ultimately and inevitably private. As observers, however, we tend to draw conclusions of our own regarding the meaning of the events in which someone else is participating, and we also tend to organize and classify otherwise discrete events on the basis of seemingly common elements. This paper will describe a technique for systematizing such observations which has been employed in the analysis of educational institutions: high school, college and evening college. One of the major dimensions of the school environment, the characteristics of the academic learning climate, will then be examined in some detail and related to other aspects of the school and student body.

* Based in part on addresses to the Southern College Personnel Association on October 30, 1961, in Louisville, Kentucky, and the American College Personnel Association, on April 18, 1962, Chicago, Illinois. The opportunity to undertake the research described in this paper has been greatly facilitated by grants from the U.S. Air Force, the U.S. Office of Education, the Carnegie Corporation, and the College Entrance Examination Board.

The supervision of data processing and the preparation of materials for this paper was undertaken by Marcia Post, with the assistance of Michael Gordon, Marilyn Manwaring, Janice Marsden and Marilyn Rothschild.

THE MEASUREMENT OF ENVIRONMENTAL PRESS AND PERSONALITY NEEDS

Some years ago H. A. Murray (1938) introduced a taxonomy for classifying both the environmental pressures and the characteristic ways in which an individual strives to structure the environment for himself. He called the external pressures *press*, their internal counterparts *needs*. Both needs and press are inferred from characteristic activities and events, the former from things that the individual typically does, the latter from things that are typically done to him in some particular setting.

In an academic setting, for example, there may be several alternative implications to the fact that resident students at a given college must get written permission to be away from college overnight. If we also observe, however, that students are often kept waiting when they have appointments with faculty members, that freshmen have to take orders from upperclassmen for a period of time, and that the school administration will not tolerate student complaints or protests, we may feel justified in inferring a strong pressure toward the development of student *abasement* responses at this school.

Students with high needs for abasement might perhaps regard a school with a strong press for abasement as an especially congenial place to be. The strength of such abasement needs could be judged by the extent to which the student appears to enjoy taking the blame for something done by his friends, likes telling others about his mistakes and failures, tries to figure out how he was to blame whenever he is involved in an argument, and dislikes making a fuss when someone deliberately takes advantage of him.

The Activities Index and the College Characteristics Index are questionnaires developed respectively for the measurement of needs and press (Stern, 1958a). The Activities Index was prepared originally in collaboration with B. S. Bloom, M. I. Stein, and H. Lane¹ for use in the Chicago studies of student personality assessment (Stern, Stein & Bloom, 1956). It consists of 300 items describing commonplace daily activities similar to those just used as illustrations of need abasement, distributed among 30 scales of ten items each, to which the individual records his like or dislike.

The College Characteristics Index, developed in collaboration with C. R. Pace² (Pace & Stern, 1958) has a design similar to that of the Activities Index. The items, however, describe activities, policies, procedures, attitudes, and impressions that might be characteristic of various types of undergraduate

¹ With the assistance of James Abegglen, Paul Baer, Sharon Goldberg, James Sacks, Mary McCord Tyler, and Dorothy Whitman. Contributions to subsequent revisions have been made by Fred Carleton, Louis DiAngelo, John Scanlon, Walter Stellwagen, Charles Van Buskirk, and others.

² With the assistance of Barnett Denton, Sally Donovan, Harriett Dorn, Eugene Farber, Dagny Henderson, Anne McFee, and others.

college settings. A High School Characteristics Index (Stern, 1961) has recently been prepared with the aid of J. Dopyera, V. L. Woolston, E. K. Woolfolk, and J. Lyons, and an adaptation for use in evening colleges has been completed by C. Winters, S. Archer, and D. Meyer.

EARLIER INDEX RESEARCH

Previous research with the Indexes, based on a wide variety of samples ranging from psychiatric patients and industrial personnel to nearly 10,000 students drawn from some 100 American colleges and universities, tends to support the following conclusions:

1. Responses to needs scale items appear to be resistant to faking (Schulz, 1955).
2. The social desirability of needs scale items is relatively homogeneous, none being considered important to accept or to reject by any significant number of subjects (Unpublished data).
3. Behavioral descriptions based solely on needs scale profiles appear to be recognized and confirmed by peers, psychiatrists and administrators (Scanlon, 1958; Unpublished data).
4. There are significant relationships between needs scale profiles and other forms of overt behavior, including:
 - a. academic performance (Chilman, 1959; Stern, Stein & Bloom, 1956).
 - b. study habits (Gladstein, 1957).
 - c. reading skills (Briggs, 1958; Glass, 1957; Shropshire, 1955).
 - d. attitudes and values (Di Vesta & Merwin, 1960; Haring, Stern & Cruickshank, 1958; Stern, 1960a, 1960b, 1962a).
 - e. deviant behavior (Briggs, 1958; Chilman, 1959; Stern, 1958b).
 - f. other personality processes (Cole, 1958; Jackson, Messick & Solley, 1957; Wassertheil, 1955).
 - g. career choice (Merwin & Di Vesta, 1959; Siegelman & Peck, 1960; Stern, 1954, 1960b; Stern & Scanlon, 1958; Stern, Stein & Bloom, 1956).
 - h. social background (Unpublished data).
5. Professionals tend generally to have higher scores on scales reflecting intellectual needs and emotional controls than students in the same fields, except for teachers who are characterized by weaker intellectual needs than the education majors matched with them (Stern, 1960b).
6. Student bodies tend to be characterized by needs scale profiles readily recognizable as personalized versions of the prevailing press at their institution. There is greater variability between students as they describe themselves, however, than there is in their descriptions of their college

press (Stern, 1960a, 1960b, 1962a). This is not attributable to the fact that the same students may serve as sources for both sets of data, for there is no relationship between the needs preferences a student records for himself and the press characteristics he attributes to the college either at the same institution (McFee, 1961) or across institutions (see below).

7. Press scale profiles based on miscellaneous student samples tend to be consistent with those from more specialized samples of National Merit Scholars and Finalists, faculty, and administration at the same institutions (Pace & Stern, 1958; Thistlethwaite, 1959a, 1959b).
8. There is as much agreement in student response to subjective and impressionistic press items as there is to items more readily verifiable by reference to empirical facts (McFee, 1961).
9. Environmental descriptions based solely on press profiles appear to be recognized and confirmed by academic participants and observers (Unpublished data).
10. There are significant relationships between press scale profiles and the types of institutions sampled (Stern, 1960b, 1962a):
 - a. The majority of schools studied have high scores involving various aspects of constraint and dependency. Denominational colleges are the most extreme in their emphasis on conformity, the so-called elite private liberal arts schools least so.
 - b. These same small liberal arts colleges are also highest in intellectual press. The combined image of high academic achievement and personal autonomy presented by these schools is sharper and further in advance of relevant student characteristics than is true of any other type of institution studied, suggesting a built-in and self-conscious strain towards academic excellence at the elite schools sampled. Wilson and Lyons (1961), in their press analysis of work-study programs, have also noted the extent to which this characteristic overrides other bases for the classification of schools.

Variants in the orientation of this image of academic excellence suggest two broad dimensions: (a) arts, science or service, and (b) appreciation versus creation. Pace (1960) and Thistlethwaite (1959a, 1959b, 1960) have elaborated on some of these distinctions in press analyses employing a somewhat different analytic model, as has Hutchins (1961) in a study of medical school environments.

- c. The third group of schools identified by need-press analysis constitute the remaining strongholds of a collegiate tradition in American higher education immortalized by Scott Fitzgerald: fountains of knowledge where students gather to drink. Although this species has been on

the decline since the 1930's, it is apparently saved from total extinction at a few large state preserves (to borrow a phrase from sociologist Martin Trow). These schools are described by their students as sources of social pleasure and togetherness, although lacking in academic strength and direction. Analyses of differences in the images held by various majors at one such large and complex institution indicate that different subcultures within the same school may hold radically different impressions of its character, however (Stern, 1962b).

DIMENSIONS OF THE COLLEGE ENVIRONMENT

Table 1 lists all colleges for which Activities Index and/or College Characteristics Index data are available at the present moment. They are a large and diversified, but not especially representative, group of American schools. The broad classification of schools into the categories summarized briefly above was based on responses from 1993 upperclassmen in the 32 colleges designated by footnote letters in Table 1. These were selected from the total group available at the time as a somewhat more balanced sample of private liberal arts, denominational, and university-affiliated colleges, and undergraduate professional programs in engineering, business administration, and teacher training.

A more systematic statistical analysis of test responses from all students to whom both instruments were administered has now been completed. There were 1076 such students, located at the 23 schools identified by footnote b in Table 1. Although selected solely because of the availability of the matched AI-CCI responses, the list is still quite diversified. It includes several large state universities, metropolitan schools, small private colleges both church-related and nondenominational, accredited and nonaccredited, and a number of technical programs. They are most heavily concentrated in the midwest, but there is representation from the northeast, the middle Atlantic states, the south, and the far northwest.

The covariance matrix produced from the scale intercorrelations was factored and rotated (normal varimax)⁸, first on the AI needs variables alone and then in a composite analysis including both the 30 AI scales and the 30 CCI press scales as well. Thirteen needs factors emerged in the first analysis. The same thirteen reappeared in the second analysis, together with ten new factors produced by the press variables. The two sets of factors are independent of one another, with the exception of one which shows appreciable loadings from both needs and press sources.

⁸ This analysis was programmed by David Saunders, with the aid of a special grant from the College Entrance Examination Board.

TABLE I
*Schools Included in 1961-62 AI-CCI Analyses**

Amherst College (Mass.)	Fort Wayne Bible College (Ind.)	bOberlin College (Ohio)
bAntioch College (Ohio)	Ed.—LA	bOhio State Univ. Eng.
Arkansas, Univ. of Eng.	General Motors Inst. (Mich.)	bPurdue Univ. (Ind.)
Ball State Teachers College (Ind.)	Eng.	Queens College (N.Y.)
Barry College (Fla.)	cGeorgia Inst. of Tech. Eng.	bRandolph-Macon Woman's College (Va.)
bBennington College (Vt.)	Goddard College (Vt.)	Reed College (Ore.)
Boston Univ. (Mass.) Bus. Adm.	cHeidelberg College (Ohio)	bRhode Island, Univ. of
Bryn Mawr College (Pa.)	Hunter College (N.Y.)	bRice Institute (Texas) Eng.
bBuffalo, Univ. of (N.Y.)	Huntington College (Ind.) Ed.	bSt. Cloud State Col. (Minn.) Ed.
bCincinnati, Univ. of (Ohio) Bus. Adm., Eng.	Illinois, Univ. of Eng.	St. Francis College (Me.)
Cornell Univ. (N.Y.) Eng.	cKentucky, Univ. of Eng., Ed.-LA	San Jose State Col. (Calif.) Bus. Adm., Eng. & Ed.-LA
bDenison Univ. (Ohio)	Los Angeles Pacific Col. (Calif.)	bSarah Lawrence Col. (N.Y.)
DePauw Univ. (Ind.)	Malone College (Ohio)	bSeton Hill College (Pa.)
Detroit, Univ. of (Mich.) Eng.	bMarian College (Wisc.) Ed.	bShimer College (Ill.) So. Methodist U. (Texas) Eng.
Divine Word Seminary: Island Creek (Mass.)	Mesiah College (Pa.)	bState Univ. of N.Y. Col. of Educ. at Buffalo
Techny (Ill.)	cMiami Univ. (Ohio)	Swarthmore College (Pa.)
Drexel Inst. of Tech. (Pa.) Bus. Adm.—Eng.	bMichigan, Univ. of Eng.	cSweet Briar College (Va.) Syracuse Univ. (N.Y.)
Earlham College (Ind.)	bMinnesota, Univ. of Morgan State College (Md.)	Vassar College (N.Y.)
bEastern Mennonite Col. (Va.) Ed.—LA	Mount Mercy College (Iowa)	cWayne State Univ. (Mich.) Ed.
bEmory Univ. (Ga.)	Nasson College (Me.)	cWesleyan Univ. (Conn.)
Fayetteville S.T.C. (N.C.)	Newark Col. of Eng. (N.J.) Eng.	cW. Va. Wesleyan College
cFlorida State Univ. Eng.	Northeast La. State Col.	Winthrop College (S.C.)
	bNortheastern Univ. (Mass.) Bus. Adm., Eng.	
	bNorthwest Christian Col. (Ore.) Ed.-LA	
	Northwestern State College of La.	

* Each school is represented by one general upperclass sample, except where otherwise noted.

^b Included in the matched AI-CCI sample and in the normative group.

^c Additional schools (CCI only) added to matched sample, to build up normative group.

Both sets of factors are substantially alike in content. It seems evident therefore that the same dimensions are involved in the organization of needs as well as press. It is also evident that these dimensions are *not* artifacts attrib-

utable to the parallel nature of the Index forms or the single source of subjects from which both sets of responses were obtained, inasmuch as each instrument accounts only for its own set of the twin groups of factors.

Plots of these factors indicate that a better fit will be obtained if they are allowed to become somewhat oblique to one another. An oblimax rotation is now being undertaken for this purpose. However, the general character of the college environment may be inferred from the scales with loadings above an arbitrary cutoff of .35 on the first six CCI factors extracted in the present orthogonal analysis (see also Tables 8, 9 and 10 below):

TABLE 2
*Selected Scales and Loadings for Six Varimax Factors Extracted
from the CCI*

Factor	Estimated Validity*	F-ratio Between Schools
I Intellectual Orientation (See below for CCI scales and loadings)	.968	38.19
II Social Effectiveness Emotionality—Placidity .48, Ego Achievement .46, Exhibitionism—Inferiority Avoidance .43, Energy—Passivity .36	.836	57.41
III Play Sexuality—Prudishness, .70, Risktaking—Harm Avoidance .69, Play—Work .61, Impulsiveness—Deliberation .54, Practical—Impractical .44, Aggression—Blame Avoidance .35	.913	61.10
IV Friendliness Affiliation—Rejection .75, Nurturance—Rejection .64, Supplication—Autonomy .56, Play—Work .41	.891	32.63
V Constraint Order—Disorder .64, Narcissism .56, Conjunctivity— Disjunctivity .53, Blame Avoidance—Aggression .51, Deference—Restiveness .48, Practical—Impractical .46, Deliberation—Impulsiveness .38	.890	42.28
VI Dominance—Submission Dominance .57, Projectivity—Objectivity .50, Abasement—Assurance .49, Adaptability— Defensiveness .37	.835	6.88

* The metric of the factor scores is such that they would have a standard deviation of unity if they could be estimated with perfect validity. The obtained standard deviation of the factor score distributions has been entered here, since it may be interpreted as an estimate of the actual validity.

The high-scoring schools on the Intellectual Orientation factor (I) are, as we see below, the elite liberal arts colleges contained in this sample. Social Effectiveness (II) is associated with these same schools, as well as several

select denominational colleges. Play (III) is most prominent at several large state universities, but this group also includes several large private universities of a similar character. Friendliness (IV), or informal social organization, characterizes a mixed group of schools. All schools at the high end of the Constraint (V) or compliance factor are denominational colleges, however, whereas the Dominance-Submission (VI) or custodial care factor is associated with state teachers colleges.

The similarities between these factors and the original clusters derived from an early form of the Activities Index are apparent (Stern, 1958a). With the exception of the first factor these are not comparable with a previous analysis of the same data by Pace (1960). This may be due to alterations in the sample noted previously, but it seems more likely to be the result of differences in the strategy of the analyses. Studies by Holland (1957, 1959b) and by Heist, McConnell, Matsler and Williams (1961), as well as several of those cited earlier (Stern, 1960a, 1960b, 1962a, 1962b), strongly suggest a tendency for students with particular traits to be concentrated in schools with comparable characteristics. An analysis of intercorrelations between schools based on the rank order of scale means within each school, the procedure used by Pace, yields factors which reflect residual characteristics of the student body as well as the college environment. This procedure also tends to produce spuriously high coefficients, an artifact resulting from the interrelationships between scale means.

THE INTELLECTUAL CLIMATE

The first factor extracted in the present analysis was identified with the intellectual orientation. As a press factor it apparently consists of four components, for three of which there are corresponding needs factors. The highest loadings are associated with several scales representing *substantive intellectual interests* (Table 3). These are followed by a group of scales concerned with

TABLE 3
Substantive Intellectual Interests

	Factor Loading	Reliability (KR 20)
<i>Humanism:</i> activities in the Social Sciences and Humanities	.81	.77
<i>Reflectiveness:</i> introspective contemplation	.80	.76
<i>Understanding:</i> abstract problem-solving	.80	.75
<i>Sensuality:</i> sensory and esthetic experiences	.69	.80
<i>Science:</i> activities in the Natural Sciences	.68	.77

TABLE 4
Academic Motivation

	<i>Factor Loading</i>	<i>Reliability (KR 20)</i>
<i>Energy—Passivity: effort versus inertia</i>	.69	.70
<i>Achievement: striving for success through personal effort</i>	.66	.81
<i>Counteraction—Inferiority Avoidance: restraining after failure versus withdrawal</i>	.60	.50
<i>Conjunctivity—Disjunctivity: planfulness versus disorganization</i>	.37	.72

TABLE 5
Social Effectiveness

	<i>Factor Loading</i>	<i>Reliability (KR 20)</i>
<i>Ego Achievement: striving for power through social action</i>	.52	.58
<i>Exhibitionism—Inferiority Avoidance: attention-seeking versus withdrawal</i>	.40	.57
<i>Emotionality—Placidity: expressiveness versus restraint</i>	.36	.56

TABLE 6
Self Assurance

	<i>Factor Loading</i>	<i>Reliability (KR 20)</i>
<i>Fantasied Achievement—Fantasy Denial: fantasies of unusual public recognition versus denial</i>	.60	.40
<i>Change—Sameness: flexibility versus routine</i>	.54	.44
<i>Assurance—Abasement: self-confidence versus faculty depreciation</i>	.53	.67
<i>Restiveness—Deference: student resistance to control versus submissiveness</i>	.52	.60
<i>Objectivity—Projectivity: faculty detachment versus suspiciousness</i>	.52	.70

academic motivation (Table 4). The next three are associated with *social effectiveness* (Table 5). The remaining scales with loadings above .35 involve *self-assurance*, a climate stressing personal encouragement and minimal faculty intervention (Table 6). There is no needs factor corresponding to this group.

An Intellectual Climate Score

A simple measure of the intellectual climate in college environments may be computed from the unweighted sum of scores on the 14 scales listed above

with loadings over .50.⁴ The correlation between this score and the weighted factor score based on the loadings of all 30 CCI scales is .98. The distribution of unweighted scores for the 75 schools and programs listed in Table 1 has a range of 29.0 to 94.9, compared with a possible maximum possible spread of -20⁵ to + 120 on the 14 scales. It is a relatively symmetrical distribution, with a mean of 60.2 and a standard deviation of 13.4, but somewhat skewed towards the higher values. Its reliability, as estimated by KR 21, is at least .81.

None of the 11 schools a sigma below the mean of this distribution is known for its academic excellence. The 11 schools at the top, on the other hand, were:

Antioch C. (Ohio)	Oberlin C. (Ohio)	Swarthmore C. (Pa.)
Bennington C. (Vt.)	Reed C. (Ore.)	Vassar C. (N.Y.)
Bryn Mawr C. (Pa.)	Sarah Lawrence C. (N.Y.)	Wesleyan U. (Conn.)
Goddard C. (Vt.)	Shimer C. (Ill.)	

Although all 11 of these schools are known for their quality, cost, and selectiveness, it does not follow that the student responses on which these scores are based are a reflection of their reputation rather than their actual present status. Several other schools listed in Table 1 should have received similarly high scores if this were the case, but neither of the two most obvious exceptions are even in the upper third of the distribution.⁶

Eight of the top 11 schools may be found in the Knapp and Greenbaum (1953) lists of collegiate origins of American scholars. The average rate is 34.9 awards per 1000 graduates for these eight, a rate equalled or exceeded by barely one per cent of the 629 schools listed by Knapp and Greenbaum. Six of the bottom 11 are also listed, with an average rate of 1.6 per 1000. The correlation between the Knapp-Greenbaum Index and the Intellectual Climate score is .80 (see Table 7), for the 50 schools for which both measures are available.

The rate at which graduates subsequently obtain PhD's is another measure of the academic quality very similar to the Knapp-Greenbaum Index (which includes other awards in addition to the doctorate degree). As indicated in Table 7, the PhD output rate (Thistlethwaite, 1959a, 1959b; Astin, 1961, 1962) correlates .76 with the Intellectual Climate score. The percentage of National Merit Scholarship Finalists among entering students does not cor-

⁴ Dropping the three scales with loadings below .50 helps to reduce the overlap between this measure and those which might be similarly derived for each of the other five factors.

⁵ Two of the 14 scales, *Assurance—Abasement* and *Restiveness—Deference*, are keyed in the opposite direction for normal scoring and are therefore subtracted from the total score here.

⁶ Inasmuch as the sampling process in most schools was largely fortuitous, no institutions other than the top 11 will be identified by name.

TABLE 7

*Correlations Between Intellectual Climate Score (CCI)
and Other Measures of Academic Quality^a*

	n	r
Knapp-Greenbaum Index "Scholars" per 1000	50	.80
Per Cent Grads Receiving PhD 1936-1956	37	.76
Per Cent Merit Scholar Entrants 1956	41	.49
Merit Scholars per 1000, 1960	25	.59
National Merit Scholarship Qualifying Test Means	38	.71
College Board Means		
Verbal	16	.83
Mathematical	16	.34

^a Data for all but the first of these measures was made available through the courtesy of Dr. John Holland and Alexander W. Astin, National Merit Scholarship Corporation.

relate nearly as well ($r = .49$) suggesting either that these awards are not a good index of scholarly potential, or that these students do not choose colleges as appropriately as they might. The relationship to the number of Merit Scholars at all class levels is somewhat higher ($r = .59$), as might be the case if more of them tended to drop out from the poorer schools as time went by.

The very high correlation of .83 with the College Board Verbal score suggests that the colleges select students more carefully than the students choose their colleges. The Mathematical score is barely significant, but the National Merit Scholarship Qualifying Test mean is also quite high ($r = .71$). It is evident from these relationships that the intellectual climate of an institution is closely related to the quality of its student body and to their later academic achievements after graduation.

Characteristics of an Intellectual Climate

Table 8 lists the mean CCI scores on all scales associated with the intellectual orientation factor for the two groups of extreme schools. It is evident that all scales are contributing significantly to the differences between these schools. The reversal of signs between means for the top and bottom groups is of particular interest. Since these are standard score means based on the selected normative sample discussed earlier, deviations in either direction

TABLE 8
Differences in College Environment (CJI) and Student Personality (AI) Intellectual Orientation Scale Scores for Colleges with Extreme Intellectual Climate Scores

		Environment ^b				Personality ^c			
		High Group	Low Group	Diff	p	High Group	Low Group	Diff	p
Interests	Sensuality (Arts)	1.96	-1.46	3.42	.001				
	Reflectiveness	1.67	-1.49	3.16	.001	.37	-.85	1.22	.001
	Humanities, Social Sciences	1.74	-1.79	3.53	.001	.65	-.95	1.60	.001
	Sciences, Physical-Biological	1.27	-1.34	2.61	.001	.48	-.26	.74	.001
	Understanding	1.57	-1.67	3.24	.001	.44	-.45	.89	.001
Motivation	Understanding	1.57	-1.67	3.24	.001	.44	-.45	.89	.001
	Achievement	1.30	-.96	2.26	.001	-.11	-.05	.06	...
	Counteraction-Inferiority Avoidance	1.40	-.98	2.38	.001	.05	-.06	.11	...
	Conjunctionivity-Disjunctivity	—	.25	—.76	.51	.001	-.43	.12	.55
	Work-Play		not relevant			.66	-.31	.97	.001
	Energy-Passivity	1.55	-1.21	2.76	.001	-.05	-.27	.22	.05
Social Effectiveness	Energy-Passivity	1.55	-1.21	2.76	.001	-.05	-.27	.22	.05
	Emotionality-Placidity	.62	—.27	.89	.001	.05	-.35	1.00	.001
	Exhibitionism-Inferiority Avoidance	—	.05	—.64	.59	.001	.05	.21	...
	Ego Achievement	.90	—.85	1.75	.001				
Assurance (Encouragement & minimal intervention)	Change-Sameness	1.29	—.79	2.08	.001				
	Fantasied Achievement-Denial	1.47	-1.13	2.60	.001				
	Objectivity-Projectivity	1.03	-1.33	2.36	.001				
	Assurance-Abasement	1.55	-1.64	3.19	.001				
	Restiveness-Deference	2.22	—.47	2.69	.001				

^a All values in this table are standard score means ($\bar{X} = 0.00$, $\sigma = 2.0$), based on a normative sample of 1993 upperclassmen in 32 American colleges. Deviations from zero recorded above reflect differences, therefore, between the normative sample and these groups.

^b There are 1156 students from 11 American colleges in the high group, 772 students from 11 schools in the low one.

^c There are 820 students from 7 American colleges in the high group, 564 students from 8 schools in the low one.

^d The factor loading from this source was not significant.

TABLE 9

Differences in College Environment (CGI) and Student Personality (AI) Social Relationships Scale Scores for Colleges with Extreme Intellectual Climate Scores^a

		Environment				Personality			
		High Group	Low Group	Diff.	p	High Group	Low Group	Diff.	p
<i>Social Relationships Need-Press Scales</i>									
Play (Press)	Aggression-Blame Avoidance	.60	.12	.48	.001	not relevant	not relevant	not relevant	
	Risktaking-Harm Avoidance	—.51	—.12	.39	.001	not relevant	not relevant	not relevant	
	Practical-Impractical	—2.24	.96	3.20	.001	not relevant	not relevant	not relevant	
	Sexuality-Prudishness	—1.24	—.12	1.12	.001	—.35	—.01	.34	.01
	Play-Work	—1.60	.20	1.80	.001	—.66	.31	.97	.001
	Impulsiveness-Deliberation	.69	—.45	1.08	.001	.57	—.39	.96	.001
Self-Gratification (Needs)	Senuality	not relevant	not relevant	.48	—.19	.67	.001		
	Narcissism-Neglect	not relevant	not relevant	—.17	—.13	.04	...		
	Emotionality-Placidity	not relevant	not relevant	.65	—.35	1.00	.001		
	Supplication-Autonomy	not relevant	not relevant	—.69	.07	.76	.001		
	Nurturance-Rejection	not relevant	not relevant	—.25	—.42	.17	...		
Friendliness	Play-Work	—1.60	.20	1.80	.001	—.66	.31	.97	.001
	Affiliation-Rejection	—.57	—.59	.02	...	—1.11	.18	1.29	.001
	Nurturance-Rejection	—.98	—.24	.74	.001	not relevant	not relevant	not relevant	
	Supplication-Autonomy	—.95	—.17	.78	.001	not relevant	not relevant	not relevant	
Dominance-Submission	Projectivity-Objectivity	—1.03	1.33	2.36	.001	not relevant	not relevant	not relevant	
	Dominance	—.94	.61	1.55	.001	not relevant	not relevant	not relevant	
	Adaptability-Defensiveness	—1.77	.93	2.70	.001	.14	—.20	.84	.01
	Abasement-Assurance	—1.55	1.64	3.19	.001	—.08	.01	.09	...
	Practical-Impractical	not relevant	not relevant	—.64	—.27	.91	.001		
	Deference	not relevant	not relevant	—.71	—.07	.64	.001		
	Blame Avoidance-Aggression	not relevant	not relevant	—.17	—.27	.10	.001		
	Supplication-Autonomy	not relevant	not relevant	—.69	.07	.76	.001		
	Nurturance-Rejection	not relevant	not relevant	—.25	—.42	.17	...		

^a See footnotes for Table 8 for identification of parameters and sample.

Differences in College Environment (CCI) and Student Personality (AI) Emotional Expression Scale Scores for Colleges with Extreme Intellectual Climate Scores^a

TABLE 10

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		Environment				Personality			
		High Group	Low Group	Diff	p	High Group	Low Group	Diff	p
		1.55	-1.21	2.76	.001		not relevant		
Assertiveness (Effectiveness Press, see Table 8)		.62	-.27	.89	.001		not relevant		
Exhibitionism-Inferiority Ego Achievement Dominance Fantasied Achievement Aggression-Blame Avoidance		-.05	-.64	.59	.001	.05	.21	.16	...
		.90	-.85	1.75	.001	.18	.06	.12	...
		not relevant	not relevant	—	.19	.38	.57	.001	
		not relevant	not relevant	—	.14	.85	.99	.001	
		not relevant	not relevant	—	.17	.27	.10	...	
Emotionality-Placidity Aggression-Blame Avoidance Risktaking-Harm Avoidance Sexuality-Prudishness Practical-Impractical Play-Work Change-Sameness Impulsiveness-Deliberation Disjunctivity-Conjunction Disorder-Order						.65	— .35	1.00	.001
Impulsiveness (Play Press, see Table 9)		.60	.12	.48	.001	.17	.27	.10	...
		-.51	— .12	.39	.001	.35	— .02	.37	.001
		—1.24	— .12	1.12	.001		not relevant		
		—2.24	.96	3.20	.001		not relevant		
		—1.60	.20	1.80	.001	— .66	.31	.97	.001
		not relevant	not relevant	—	.40	— .18	.53	.001	
		.63	— .45	1.08	.001	.57	— .39	.96	.001
		not relevant	not relevant	—	.43	— .12	.55	.001	
		not relevant	not relevant	—	.41	— .33	.74	.001	
Placidity-Emotionality Blame Avoidance-Aggression Harm Avoidance-Risktaking Work-Play Sameness-Change Deliberation-Impulsiveness Conjunction-Disjunctivity Order-Disorder Practical-Impractical Deference-Restiveness Narcissism-Neglect						— .65	.35	1.00	.001
Constraint and Compliance		— .60	— .12	.48	.001	— .17	— .27	.10	...
		not relevant	not relevant	—	.35	— .02	.37	.001	
		not relevant	not relevant	—	.66	— .31	.97	.001	
		not relevant	not relevant	—	.40	— .18	.53	.001	
		— .63	.45	1.08	.001	— .57	.39	.96	.001
		— .25	— .76	.51	.001	— .43	.12	.55	.001
		—2.05	.54	2.59	.001	— .41	.33	.74	.001
		not relevant	not relevant	—	.44	— .14	.85	.001	
Obsessive- Compulsiveness								.33	.74
Order-Disorder						— .41	— .17	.33	.001
Narcissism-Neglect						— .44	— .40	.37	.001
Projectivity-Objectivity						— .44	— .14	.85	.001
Fantasy Denial-Fantasized Achievement								.99	.001

^aSee Table 8 for classification of variables and example.

from zero reflect differences between these groups and the normative sample. The schools with high intellectual climate scores, it will be noted, are as far above the general population in stressing scholarly interests and academic motivation as the low schools are below it. The low schools, on the other hand, are markedly higher than the general population in types of faculty intervention which undermine the self-confidence and freedom of expression of their students.

The same striking differences in environmental characteristics associated with social relationships and with emotional expression are apparent from Tables 9 and 10. *Affiliation* is the only press scale which fails to differentiate between these schools, all others being significant beyond the .001 level. Schools characterized by a strong intellectual orientation also tend to emphasize a high degree of personal independence for their students, as well as forms of emotional expression associated with social effectiveness.

A clear picture of these differences may be obtained from a summary of the highest 25 items on the CCI for these two groups of schools. These are based on the actual items, edited where required only to reduce the length of the passages and facilitate the transition of ideas.

The High Intellectual Climate

Intellectual Orientation. "Alma Mater" seems to be less important than "subject matter" at this school. Faculty members put a lot of energy and enthusiasm into their teaching. A student who insists on analyzing and classifying art and music is not likely to be regarded as odd. Modern art and music get much attention here. A lecture by an outstanding literary critic would be well attended. The school has an excellent reputation for academic freedom. Students concerned with developing their own personal and private system of values are not uncommon here. Working hard for high grades is not unusual. In class discussions, papers and exams, the main emphasis is on breadth of understanding, perspective, and critical judgment. A well reasoned report can rate an A grade here even though its viewpoint is opposed to the professor's. Students often argue with the professor; they don't just admit they were wrong. Many students travel or look for jobs in different parts of the country during the summer. Quite a few faculty members have had varied and unusual careers.

Social Relationships. The professors really talk with the students, not just at them. There is no period when freshmen have to take orders from upper-classmen. Student organizations are not closely supervised to guard against mistakes. There is a high degree of respect for nonconformity and intellectual

freedom. Students are encouraged to be independent and individualistic. Written excuses are not required for absence from class. Grade lists are not publicly posted. The college offers few really practical courses such as typing or report writing. Students take no particular pride in their personal appearance. Student leaders have no special privileges.

Emotional Expression. There is much studying here over the week-ends, but students frequently do things on the spur of the moment.

The 25 items above were answered in the same way by 90.8 per cent or more of the 1156 students from the 11 schools represented here. The 25 items with the highest consensus from the 773 respondents from the 11 schools lowest in intellectual climate start at 79.8 per cent of the sample. There is somewhat less consensus than at these low schools, perhaps because of their size and diversity as we shall see subsequently.

The Low Intellectual Climate

Intellectual Orientation. "Alma Mater" seems to be less important than "subject matter" at this school. Few people know the "snap" courses to take or the tough ones to avoid. When students get together they seldom talk about trends in art, music or the theater. Paintings or phonograph records from the library do not circulate among the students. Few classes ever meet out of doors on nice days. Books dealing with psychological problems or personal values are rarely read or discussed. There are few public debates. Education here tends to make students more practical and realistic. The future goals for most students emphasize job security, family happiness, and good citizenship. There is little emphasis on preparing for graduate work.

Social Relationships. Students quickly learn what is done and what is not done on this campus. Few students try to pattern themselves after people they admire. Professors usually take attendance in class. Classes meet only at their regularly scheduled time and place. Student papers and reports must be neat. The campus and buildings always appear well-kept. Little enthusiasm or support is aroused by fund drives for Campus Chest, Care, Red Cross, and similar organizations. Students frequently study or prepare for examinations together and help one another with lessons. There are many opportunities for students to get together in extracurricular activities. Many students have special good luck charms and practices.

Emotional Expression. There is a lot of excitement and restlessness just before holidays. Student gathering places are typically active and noisy. Students rarely start projects without trying to decide in advance how they will

develop or where they may end. There are many student organizations actively involved in campus and community affairs.

Obvious differences in the character of the educational process at these two groups of institutions are evident from these item summaries. Schools with a high intellectual climate score tend to emphasize scholarly interests as an end in themselves, and also provide richer cultural opportunities. Relationships between students and faculty are more intimate, and less likely to be confined to bureaucratic details. The low scoring schools on the other hand are technically oriented, noncultural institutions. The academic process is more narrowly and tightly organized, and there is evidence of a greater separation between the student peer culture and the academic community. The low schools would appear to be more compartmentalized, less integrated, organizations.

Administrative and Organizational Differences?

Size. The high consensus items from the CCI reported above suggest a difference in organizational structure between the high and low schools which is entirely in accord with the facts. As Table 11 indicates a low school has on the average six times as many students as a high school. The difference is

TABLE 11

Size of Student Bodies Among Intellectual Climate Score Groups

No. Cases	High		Low	
	Total	No. Cases	Accred.	Non-Accred.
11	11	11	7	4
Av. No. Students				
All levels	848.7	4,956.4	7,627.3	283.8
Foreign	25.9	—	145.3	— ^a
Graduate	56.6	—	3,672.1	—
Undergraduate	792.1	1,240.4	1,787.3 ^b	283.8
Men	500.6	1,107.3	1,580.2	161.7
Women	520.9	327.2	432.9	162.5
% Foreign	3.0	—	1.9	—
% Grad	1.9	—	48.1	—
% Undergraduate	93.3	25.0	23.4 ^b	100.0
Sex Ratio: M/W	.96	3.4	3.6	1.0

^a Data unavailable for non-accredited schools.

^b Four of these seven cases involve a single professional school, e.g. Business Administration, Engineering, etc., at a large university. Undergraduates in other schools at these same institutions have not been included in these totals.

^c Women's colleges not included in total when computing averages.

^d The material in this section is based on information obtained from Irwin (1960) and Hawes (1959).

actually even more striking than this because four of the 11 low schools are non-accredited. These are each very small colleges and when they are excluded the average student body becomes over nine times as great as for the high schools. It is evident that the low intellectual climate group includes some very large universities, as is also indicated by the high percentage of foreign students and graduate students among the accredited low schools.

Sex. The sex ratios at these schools is also of interest. The high schools have approximately as many women as men students, as do the low non-accredited schools which are also liberal arts colleges. The low accredited universities, however, have almost four times as many men undergraduates as women. This is undoubtedly related to the types of professional programs represented among the low schools, as will be seen in a moment.

The disparity in sex ratio would be even greater than is indicated in Table 11 if the total number of women among all high schools, including women's colleges, had been included in the ratio. Over a third of the high schools are women's colleges (see Table 12). If this is a sampling bias, it is not true of the

TABLE 12
*Types of Student Bodies Among
 Intellectual Climate Score Groups*

Score Group	No Cases	Men	Women	Coed	Total
Top	11	9.1	36.4	54.6	100%
Middle	53	9.4	9.4	81.1	100%
Bottom	11	0.0	18.2	81.8	100%
Total	75	8.0	14.7	77.3	100%
All US*	2028	11.6	12.8	75.6	100%

* From Table 6, *Education Directory 1960-61, Part 3, Higher Education*, U.S. Office of Education, 1961.

total group of 75 schools since the sex ratio here is roughly comparable to that for all colleges in the United States.

Location. Although the number of non-accredited schools increases at the lower end of the intellectual climate score distribution, Table 13 indicates that non-accredited institutions are very much underrepresented among the sample of 75 schools under analysis here. Only 17.3 per cent of this sample are non-accredited, as compared with 43.7 per cent of all American colleges. It seems likely then that the low end of the score distribution for the nation is substantially below the values obtained from the present sample. The study sample is also biased geographically, due to the overrepresentation of

accredited schools from the New England, North Central, and Southern Associations.

Despite these limitations, Table 13 reflects the tendency for high-scoring institutions to be located in the north east and middle west, and the lower

TABLE 13
*Representation of Regional Accrediting Associations
Among Intellectual Climate Score Groups*

Score Group	No Cases	New England	Middle States	North Central	North West	Southern	Western College	None	Total
Top	11	27.3	36.4	27.3	9.1	0.0	0.0	0.0	100%
Middle	53	5.7	15.1	32.1	0.0	24.5	5.7	17.0	100%
Bottom	11	18.2	18.2	9.1	0.0	18.2	0.0	36.4	100%
Total	75	10.7	18.7	30.0	1.3	20.0	4.0	17.3	100%
All US	2028	4.8	13.7	18.8	3.0	12.1	4.0	43.7	100%

* Based on lists of accredited institutions in higher education. *North Central Assoc. Qlty.*, 1961, 36, pp. 31, 34-45.

scoring schools to be found in the south. The top 11 are, moreover, situated in small communities, averaging 12,000 people if the one school in a large city (Reed College) is excluded. The 11 low schools are predominantly metropolitan, averaging 560,000 people per site for the accredited. Even the four low non-accredited schools are in communities which average 63,000 in size.

These differences in geographical location are closely related to the percentages of students living on campus, which is 93.4, 64.0, and 38.3 per cent respectively for the high, low non-accredited, and low accredited schools. The percentage of out-of-state students is also, in the same order, 79.5, 35.3 and 19.8 per cent respectively. The high schools are, as we have already known, residential liberal arts colleges which attract and select a high proportion of their student body from out of the state. Although the low non-accredited are also liberal arts colleges, many more of their students come to them from within the state. The low accredited are the most extreme in this respect; the majority of the students at these schools commute to class from non-university residences.

Control. The difference in the functions served by these schools is further reflected in their academic structure. The high schools are all private and non-sectarian whereas five of the seven accredited low schools are public institutions (see Table 14). State universities are also overrepresented across the middle range of the intellectual climate score distribution, as well as in the sample of 75 as a whole. This would tend to bias the distribution towards

the lower end, compensating more or less for the deficiency of denominational colleges.

The low accredited schools, being under public control, are governed to a large extent by elected officials or by other trustees appointed by them. Their boards tend to be somewhat smaller than those administering the top 11 schools, averaging 20 versus 25 members respectively. The boards of the high

TABLE 14
Type of Institutional Control Among Intellectual Climate Score Groups

Score Group	No Cases	State	City	Pvt	Denominational Control			Total
					Prot	Rom Cath	Jewish	
Top	11	0.0	0.0	100.0	0.0	0.0	0.0	100%
Middle	53	39.6	5.7	20.8	20.8	13.2	0.0	100%
Bottom	11	27.3	18.2	27.3	18.2	9.1	0.0	100%
Total	75	32.0	6.7	33.3	17.3	10.7	0.0	100%
All USA	2028	19.1	15.5	25.6	24.5	14.9	0.3	100%

* From Table 4, *Educational Directory 1960-61, Part 3, Higher Education*. US Office of Education, 1961.

schools are augmented in part by trustees recommended or selected by alumnae, accounting on the average for about 25 per cent of the membership, and in some cases by faculty, parents or students. Two of the low state schools also give their alumnae a voice in board affairs, but in smaller proportion to the total and there is no representation from the faculty or student body. At another of these seven the entire board is elected by popular vote.

TABLE 15
Types of Programs Among Intellectual Climate Score Groups

Score Group	No Cases	Professional, Technical, Terminal Occupational, including some Primarily			Liberal Arts, Terminal Occupational & Teacher			Total
		Teacher Prep.	Teacher Prep.	Liberal Arts	Liberal Arts & Teacher Prep.	Occupational & Teacher Prep.	University	
		0.0	0.0	36.4	45.4	9.1	9.1	
Top	11	0.0	0.0	36.4	45.4	9.1	9.1	100%
Middle	53	7.5	3.8	7.5	17.0	17.0	47.1	100%
Bottom	11	18.2	0.0	0.0	9.1	27.3	45.4	100%
Total	75	8.0	2.7	10.7	20.0	17.3	41.3	100%
All US*	2028	17.8	5.9	6.4	25.6	28.5	15.8	100%

* Based on data from Table 3, *Educational Directory 1960-61, Part 3, Higher Education*. US Office of Education, 1961.

TABLE 16
*Highest Degree Offered by
 Each Intellectual Climate Score Group*

<i>Score Group</i>	<i>No. Cases</i>	<i>None</i>	<i>BA</i>	<i>MA</i>	<i>PhD</i>	<i>Other</i>
Top	11	0.0	18.2	72.8	9.1	0.0
Middle	59	5.7	28.4	32.1	34.0	0.0
Bottom	11	9.1	36.4	27.3	27.3	0.0
Total	75	5.3	28.0	37.3	29.3	0.0
All USA	2028	29.2	36.4	22.4	10.4	1.5

* From Table 1, *Education Directory 1960-61, Part 3, Higher Education*, US Office of Education, 1961.

Program. Tables 15 and 16 are further reflections of the increasing academic complexity associated with lower intellectual climate scores. The middle and low schools offer a variety of technical and occupational programs, as well as those leading to the PhD, whereas the top 11 are primarily oriented towards a general program in the liberal arts (and teacher preparatory) with the possibility of a terminal MA degree.

A very high proportion of the students at these high schools obtain advanced degrees, as we have seen from the high correlation between the intellectual climate score and various measures of scholarly achievement. Few of them do so at these same high schools from which they got their undergraduate preparation, as is clear from the low percentage of graduate students indicated in Table 11, so it is evident that the MA programs of these schools are very limited in scope.

The low schools, on the other hand, not only have very active graduate schools; they also offer a variety of undergraduate two- and three-year diplomas in various special fields. The primary emphasis is markedly instrumental, in striking contrast to the general education and pre-professional programs of the high schools. The latter are also characterized by a variety of special educational opportunities represented in honors programs, tutorials, experimental colleges, semesters abroad, etc. There is some irony in the fact that over a third of the high schools routinely offer advanced standing by examination, whereas only one of the vocationally-oriented low schools does so.

Student activities are of a similar character (see Table 17). Student government and dormitory social activities are of particular importance at the high schools. The low schools are not strong in either of these, but the non-accredited lows emphasize religious activities and the accredited ones fraternity and sorority membership. It should also be noted that all but the wom-

TABLE 17
*Differences in Student Activities Cited by Each
 Intellectual Climate Score Group^a*

	<i>High</i>	<i>Total</i>	<i>Low Accred.</i>	<i>Non-Acc.</i>
Religious	0.0	18.5	6.7	33.3
Intercollegiate Athletics	3.8	11.1	6.7	16.7
Fraternity-Sorority	3.8	14.8	26.7	0.0
Extracurricular	26.9	25.9	33.3	16.7
Student Union	11.5	11.1	13.3	8.3
Intramural Athletics	7.7	3.7	0.0	8.3
Dormitory Social	19.2	7.4	6.7	8.3
Student Government	26.9	7.4	6.7	8.3
Total	100.0	100.0	100.0	100.0

^a Based on the three most important types of student activities cited by the administration of each college in Hawes (1959).

en's colleges among the accredited lows offer ROTC, three of them requiring it for graduation, whereas none of the high schools have ROTC units.

Faculty. Although the low schools have six times as many students, they have less than three and one-half times as many instructors. If the low non-accredited schools, averaging 24 faculty each, are excluded from these calculations, there are only five times as many faculty at the accredited low schools (522 average low to 104 average high) for nine times as many students (7600 average low to 850 average high). The average number of full time faculty is even more striking, there being but little more than three times as many of these at the accredited low schools (average 280 to 90). Finally, the low schools average 80 PhD's on the faculty per school, only a third more than the average of 60 at each high school.

The corresponding student-faculty ratios are, at the high schools, one instructor to eight students and one full-time instructor to every 10 students. The low accredited⁸ schools have one instructor for every 15 students, one full-time for every 27. The relatively large change in student-faculty ratio from total to full-time for the low schools is due largely to the augmented part-time staff count from affiliated colleges of medicine at two of these schools, and to the duplication of full-time faculty members teaching in more than one school or college of the same institution. In the high schools 84 per cent of the faculty is full-time, compared with 54 per cent at the accredited lows. Two-thirds of the full-time high faculties are PhDs, furthermore, in contrast with one-third of the accredited low faculties.

Data on faculty salaries is complicated by the fact that the source for this

⁸ Full-time faculty and PhD totals are not available for the non-accredited schools.

information is the American Association of University Professors⁹ and is thus limited to those schools which have AAUP chapters. Eight of the top 11, or 73% do, and five of the eight reported their salaries for publication, the average being \$7900 per academic year. Only five of the bottom 11 (45%) have chapters, and none of these authorized the publication of salary figures. Chapters reporting from the next 17 schools from the top, which takes us to the mean of the intellectual climate score, also report an average salary of \$7900 and those of the 36 institutions from the middle to the bottom 11 which published salary figures average \$7200. There is no very great disparity then in salary to be expected between the top and bottom of the score distribution.

AAUP membership declines among these four groups of schools from 73 per cent of the top 11, 76 per cent of the remaining 17 in the upper half, 58 per cent of the next 36 schools, and 45 per cent of the bottom 11. The relationship between these chapters and their respective college administrations is suggested by the percentages reporting salaries for publication within each of these groups: 62, 46, 62, and 0 per cent, respectively. But perhaps there is even more significance to be attributed to the fact that 82 per cent of the high schools have refused publicly to participate in the NDEA program because of the disclaimer affidavit, compared with 50 per cent of the next 17 which disapproved (of which only one withdrew from the program), and 8 per cent of the next 36 all of which disapproved publicly but continued to participate. Only one of the bottom 11 schools (9 per cent) disapproved, also without withdrawing.

Finances. The financial assets of the high schools are substantially greater than the lows for all forms of capital except buildings and grounds. The urban properties of the low universities are twice the value of the largely rural acquisitions of the high colleges (see Table 18). On balance then, the gross value of both groups of institutions is approximately the same. When these totals are translated into average dollars per student, however, a very different picture emerges. The resources of the low universities are not very substantial when considered in terms of the number of students they must serve.

The discrepancy in dollar resources, great as it appears, seems less dramatic than the more tangible characteristics of the physical plant. There is a hypothetical plot of land less than 50 feet square available to each low university

⁹Obtained here from Academic Salaries 1958-1959: Report of Committee Z on the Economic Status of the Profession. *AAUP Bull.*, 1959, 45, 157-194. This year was chosen in preference to more recent reports since it corresponded most closely to the year for which most other data reported here, including the AI-CCI, were obtained.

TABLE 18
Financial Assets of Schools at Opposite Extremes of Intellectual Climate Score^a

	<i>Average Dollars</i>			
	<i>per School</i>		<i>per Student^b</i>	
	<i>High</i>	<i>Low</i>	<i>High</i>	<i>Low</i>
Endowment: Book Value	12,462,459	4,751,496	14,684	623
Endowment: Market Value	18,109,858	7,466,344	21,340	979
Gifts or appropriations (capital)	792,445	809,751	934	106
Building, grounds & equipment				
Average size (acres)	314.7	381.6	.37	.05
Average dollar value	6,851,323	14,531,744	8,073	1,905
Library				
Average no. volumes	196,183	260,401	21	5
Average no. periodicals	887	1,425	.10	.08
Av. expenditures per year	23,621	53,086	2.53	.99

^a Only the seven accredited low schools are represented here from the bottom group; comparable data is not available from non-accredited institutions.

^b These are 9336 students at the 11 high schools; 53,391 at the low.

student, compared with better than a third of an acre per high liberal arts college student. The schools likewise have 5 books for each low student, 21 per high. The lows subscribe to more periodicals, presumably technical, produce more scholarly publications (.1.3 to .4), and spend more than twice as much per year to improve their holdings, but the expenditure amounts to barely a dollar per student as compared with \$2.53 per student in the high colleges. The high college libraries are smaller in total size, but there is some evidence for their quality in the fact that they contain some 3.4 special named collections per school, to 1.1 per low library.

Table 19 dramatizes these differences in the relative resources of the two groups of institutions even more sharply. The current income of the low schools is substantially larger, particularly from government appropriations included as a part of general income. But again, when this income is parcelled out in terms of the number of students for whom it must provide educational services, the money does not go very far. The *total* current income per student at the low schools is \$1000 per year, \$109 less than the income from student fees alone at the high schools.

The last two columns of Table 19 express current income in terms of dollars per faculty member, thus providing a rough index of faculty productivity. There is relatively little difference in the average dollars per faculty member derived from educational income at the two groups of schools, although the high college faculties do contribute a greater share of supplementary forms of income. The income from auxiliary enterprises alone more than pays the

TABLE 19
Sources of Income for Schools at Opposite Extremes of Intellectual Climate Scores^a

	<i>Average Dollars</i>				<i>per Full Time Faculty^c</i>		
	<i>per School</i>		<i>per Student^b</i>		<i>High</i>	<i>Low</i>	<i>High</i>
	<i>High</i>	<i>%</i>	<i>Low</i>	<i>%</i>	<i>\$3,977</i>	<i>1,000</i>	<i>\$2,980</i>
Total current income	2,865,926	100.0	7,629,648	100.0	3,977	1,000	26,865
Educational & general	1,864,221	65.0	5,863,708	76.9	2,197	769	21,452
Student fees only	941,122	(32.8)	1,859,809	(28.1)	1,109	321	10,830
Auxiliary enterprises	753,928	26.3	1,357,453	17.8	888	178	8,676
Student aid income	141,924	5.0	182,366	2.4	167	24	1,633
Contract research & services	105,860	3.7	226,121	3.0	125	30	642
							796

^a Only the seven accredited low schools are represented here from the bottom group; comparable data is not available for non-accredited institutions.

^b There are 9336 students at the 11 high schools; 53,391 at the 7 low.

^c There are 956 full-time faculty at the high schools; 1988 at the low.

TABLE 20
Sources of Income for Two Schools Selected from Opposite Extremes of the Intellectual Climate Score*

	<i>per School</i>		<i>per Student</i>		<i>per Full Time Faculty^c</i>	
	<i>High</i>	<i>%</i>	<i>Low</i>	<i>%</i>	<i>High</i>	<i>Low</i>
Total current income	1,373,447	100.0	6,350,090	100.0	1,968	2,097
Educational & general	961,959	70.0	4,835,573 ^d	76.2	1,378	1,597
Student fees only	672,828	(50.0)	879,968	(13.9)	964	291
Auxiliary enterprises	355,074	25.9	1,284,221	20.2	509	424
Student aid income	5,419	0.4	38,984	0.6	8	13
Contract research & services	50,995	3.7	191,252	3.0	73	63

* The high school has the highest score on the intellectual climate distribution; the low school is sixth from the bottom. The two were chosen for comparison because their relative financial standing is so similar.

^b high = 698, low = 3028

^c high = 71, low = 261

^d includes \$3,725,563 in state appropriations

TABLE 21
Average Tuition Costs in Each Intellectual Climate Score Group

	<i>High</i>	<i>Residents</i>	<i>Public</i>	<i>Out-of-State</i>	<i>Accredited Low</i>	<i>Private</i>
Tuition per academic year	\$1194	\$168		\$429	\$925	
Fees	54	98		98	65	
Room and board	850	—		588	850	
Total Costs	\$2098	556	\$266	\$1115	\$1840	
Undergraduate Scholarships per school	232	12.6		556	1029	
Per cent of all undergraduates	29.3			12.6	9.6	
Total value per school	\$173,723	\$127,711		\$127,711	\$401,492	
Average per scholarship	\$ 749	\$ 230		\$ 230	\$ 390	
Average per undergraduate	\$ 219	\$ 29		\$ 29	\$ 37	
Total loans per school	\$ 27,920	\$ 115,906		\$ 115,906	\$ 284,414	
Average per undergraduate	\$ 35	\$ 26		\$ 26	\$ 45	
Total Aid	254	55		55	82	
Net Costs						
				\$211		
						\$1060
						\$1758

* Only the seven accredited schools are represented here from the bottom group; comparable data is not available for non-accredited institutions.

^b There are 8713 undergraduates in the 11 high schools; 22,038 in all undergraduate fields in the 5 public low schools; 21,545 in all undergraduate fields in the 2 private low schools.

faculty salaries at the high schools, whereas all supplementary forms of income combined are insufficient for this purpose at the low schools.

Although these figures reveal the stronger financial position of the high-scoring colleges in general, money alone is not the determining factor. The highest-scoring school on the list actually has less income per student than one of the low-scoring 11. Table 20 contrasts these two schools, one a small liberal arts college, the other a small state university and land grant college. Their relative income is distributed in essentially the same way, with the exception of the heavy dependence on student fees at the high school as compared with state appropriations at the other. These two schools have the same number of dollars per student available to them, but this money has been used in ways which provide very different educational facilities as these have been described to us by their student bodies via the CCI.

Tuition. The cost of a college education at the high schools is substantially more than at the low schools, in general. As indicated in Table 21, tuition is only one-fifth as much for students meeting residence requirements at one of the low public universities. The high schools on the other hand offer a relatively larger number of undergraduate scholarships, and provide student aid support for a higher percentage of their undergraduates (see Table 22).

TABLE 22
Student Support in Each Intellectual Climate Score Group

	High	Low		
		Total	Accred.	Non-Acc.
Per cent undergraduate student aid	36.5	30.0	18.0	45.0
Per cent undergraduates working ($\frac{1}{4}$ time or more)	46.2	61.0	55.8	68.8

Only the low denominational colleges provide more aid, but the level of that aid is apparently modest since 68.8% of their undergraduates are employed.

The aid offered by the high schools is considerably greater than that from the lows, the average scholarship being nearly four times as much. But the net cost per student is still high, averaging \$1600 more per year than it would be for a local student at a low university living at home. It is \$800 more per year than the out-of-state student pays at the low university.

It must be noted, however, that these differences in cost are true only for the public schools. Tuition costs, fees, and room and board are about the same at the low private universities as they are for the high colleges. From a consumer point of view these schools are a poor buy for the non-local student able to meet the admissions standard of the high colleges.

STUDENT CHARACTERISTICS

From the material examined thus far it is evident that there are many points of difference between schools characterized by a high intellectual climate score and those with low scores. The merit of the high schools obviously has more of a foundation than the perceptions of their own students. Their distinctive character is associated to some degree with institutional processes which are independent of the particular attributes of the students who attend them. But we have also seen some student characteristics which are of significance in determining the quality of the instructional program.

Student Selection

The high correlation between the intellectual climate score and the College Board Verbal (.83), and the lower correlation between intellectual climate and percentage of National Merit Finalists among entering students (.49), was cited earlier as evidence that colleges select more carefully than students. Heist, McConnell, Matsler and Williams (1961) have reported that National Merit Scholarship students attending schools ranked high in the production of future scholars are more interested in serious intellectual pursuits than National Merit Scholarship students attending less productive schools. In the light of these findings it might be more accurate to say that the high colleges tend to emphasize intellectual capacity more in the selection of students than bright students emphasize intellectual climate in their selection of colleges. Indeed, an unpublished study by H. E. Berquist at the University of Chicago indicates that schools with a strong intellectual climate get students with strong intellectual needs, and some other kinds of students as well, whereas the schools with a weak intellectual climate only get the other kinds.

Further evidence of the extent to which the high colleges stress intellectual qualities may be found in the fact that all of the high schools in the present analysis require the College Entrance Examination Board Scholastic Aptitude test for admission purposes, and five of the 11 include three special aptitude tests in addition. Only five of the 11 low schools require the CEEB, and none ask for any additional test scores. Furthermore, all but one of the 11 high schools describes its admissions procedures as competitive or highly competitive, whereas only two of the 11 low schools are as selective and one of these limits this requirement to out-of-state applicants only.

The high schools report that 6.6 per cent of their freshmen are dropped for academic failure, compared with 10.1 per cent for the low schools. This may be attributable to the more stringent selection of the high students, but it may also reflect the more limited financial resources of the low students and the fact that 61 per cent of them are employed (see Table 22).

Personality Characteristics

Tables 8, 9 and 10, which listed the environmental differences in terms of CCI scales between the high and low schools, also list the personality differences between their respective student bodies as reflected in AI scale scores.

The largest differences are associated with the strong intellectual interests of the students at the high schools. Although these differences are not as great as the differences reported for the academic environments, suggesting that the student bodies are not as homogeneous in their characteristics as the schools, they are the largest differences of any which differentiate these two groups of students. It will also be noted from Table 8 that these intellectual differences are limited to academic interests; students at low schools are no less motivated, even though they lack the depth of interest characterizing students at the high schools. It seems likely that the four scales represented here—Humanities, Reflectiveness, Science, and Understanding—may provide a useful index of student intellectual orientation as an easily obtained supplement to a scholastic aptitude test score for admissions purposes.

Table 9 indicates a trend towards lower dependency needs for students at the high schools, but this is represented primarily by their less practical interests and their lack of deferent attitudes towards authority. They are consistently less self-indulgent, and at the same time more spontaneous in emotional expression, as suggested by the scores listed in Table 10.

As we found earlier in characterizing the high and low institutions, a summary of the highest 25 items on the AI provides a further aid in clarifying the differences between the two groups of student bodies.

Students in a High Intellectual Climate

Intellectual Orientation. These students like engaging in mental activities requiring intense concentration, and enjoy losing themselves in thought. They would like to understand themselves and others better, and like to read stories that try to show what people really think and feel inside themselves. They are also interested in learning more about the causes of some of our social and political problems. They give all their energy to whatever they happen to be doing, exerting themselves to the utmost for something unusually important or enjoyable.

Social Relationships. (There are no items of this type among the highest 25.)

Emotional Expression. They dislike working for someone who always tells them exactly what to do and how to do it, to some extent because they like doing things in accordance with their mood, even if it's something crazy occasionally. They like listening to the rain fall on the roof, or the wind blow through the trees. These students reject daydreams of being a brilliant mili-

tary figure or a famous movie star, or of being in love with a particular entertainer. They very strongly reject all common forms of superstition.

The 25 items on which this summary is based were answered in the same way by 84.1 per cent or more of the 820 students from the seven high schools represented here. The 25 items with the highest consensus from the 564 students at the eight low schools available start at 80.9 per cent of the sample. The amount of consensus is roughly the same for both groups, unlike the environmental descriptions which were substantially more homogeneous for the high schools than they were for the low ones.

Students in a Low Intellectual Climate

Intellectual Orientation. These students would like to understand themselves better, but they dislike thinking about different kinds of unusual behavior like insanity, drug addiction, or crime. They are interested, however, in learning more about the causes of some of our social and political problems. They exert themselves to the utmost for something unusually important or enjoyable, and they like competing with others for a prize or goal.

Social Relationships. These students enjoy talking with younger people about things they like to do and the way they feel about things. They are interested in typewriting, knitting, carpentry and similar skills, and are anxious to prove themselves efficient and successful in practical affairs. When people laugh at their mistakes it makes them uncomfortable.

Emotional Expression. They like having others offer an opinion when they have to make a decision, and seek out older people who will give them guidance and direction. They also like to direct other people's work. Although these students like being romantic with someone they love, and like doing whatever they are in the mood to do, they dislike crying at a funeral, wedding, graduation or similar ceremonies and generally avoid open emotional expression. They don't like to think about ways of changing their names to make them sound striking or different, nor do they like to pretend being a famous movie star. These students dislike the thought of toughening themselves, going without an overcoat, or seeing how long they can go without food or sleep. They strongly reject all common forms of superstition and good luck practices.

Although both groups of students are alike in their search for self-understanding and in their interest in the social and political realities, those at the high colleges are more psychologically oriented than the lows. Both groups are energetic, but the lows are clearly more ambitious, more practically oriented, and more worldly. The closer personal ties felt by the students at the low schools, their acceptance of authority from others and their eager-

ness to assume it for themselves, are similar to the dynamics of the business executives analyzed by Henry (1949). The emotional constraint prized by the lows is also consistent with this picture.

CONCLUSIONS

Teachers in some elite liberal arts colleges appear to be especially effective in motivating students toward high academic achievement. Knapp and Greenbaum (1953) attributed the high productivity of future scholars and scientists from these schools to the intellectual atmosphere to which the students are exposed. More recently, Jacob (1957) called attention to the "peculiar potency" and distinctive institutional atmosphere of this small minority among American colleges. Dressel and Mayhew (1954) have noted that schools which go the furthest in reducing authoritarian attitudes and increasing critical thinking, as measured by high gains in scores on the Inventory of Beliefs, Critical Thinking in the Natural Sciences, and Critical Thinking in the Social Sciences, have particular characteristics which help to maximize their focus on the student: (1) they are residential, (2) they are based on integrated general education programs with full administrative support, and (3) they give primary emphasis to the intellectual growth of the students. Eddy's (1959) analysis of colleges which have a great impact on their students also calls attention to the consistency with which their educational objectives are given expression in other aspects of academic life, including the prevailing level of academic aspiration, the characteristic interpersonal style among students and faculty, the channels available for intergroup communication, and the arrangement of the physical plant.

The data examined here suggests that the favorable intellectual climate achieved by some schools is attributable in part to the relatively greater resources of these institutions, and to the utilization of these resources to further the objectives of a program dedicated to scholarship and learning.

The students at the 11 schools characterized by a markedly intellectual climate share a similar orientation themselves, and an abundance of the native endowments required to fulfill such objectives. The differential representation of such students among schools at various levels of academic quality has led Riesman (1958, 1959) to attribute the distinctive ethos of the more productive, high-potency colleges to characteristics of the students rather than the institutions or their faculties. The Center for the Study of Higher Education at Berkeley has also espoused this position, and marshalled considerable evidence in its support (McConnell & Heist, 1959; Heist, 1959, 1960; Heist, McConnell, Matsler & Williams, 1961). Like Holland (1957, 1959a, 1959b) before them, their findings demonstrate that the highly productive

colleges attract highly motivated students who are more inner-directed, socially independent, receptive to learning, non-authoritarian, theoretical, unconventional and creative. They conclude that "the merit of certain institutions lies less in what they do to students than it does in the students to whom they do it" (Heist *et al.*, 1961).

Data from the present analysis also corroborate these same student characteristics at the strongly intellectual institutions. But it is also evident from the present study that the intellectual emphasis is not just a function of the students' orientation towards scholarship, any more than it is of the calibre of the faculty or their attitudes towards scholarship alone. An absence of staff preoccupation with student custodial care is another important factor. A suitable climate in which the intellect can flourish seems to require a large measure of space in which growth can occur. The students in such schools seek self-expression vigorously, and the faculty and administration respect their integrity and their efforts.

The schools which lack this emphasis on scholarship are not anti-intellectual. But they are oriented towards a different set of objectives. The low schools are largely public universities, and it is clearly the public which they attempt to serve. They offer a diversity of programs geared to vocational preparation, and attract a very pragmatic achievement-oriented student body. The practical character of these programs is as congruent with the instrumental needs of these students, as is the intellectual match between schools and students found among the high colleges. Even the extensive play activities elaborated by the student peer culture in the low schools has its functional relevance in providing social experiences and developing personal ties which anticipate future relationships in business and in the community.

All American colleges are not oriented towards the same ideal. The president of a land grant college and the parent of a child living nearby are interested in comparing their school with other colleges of the *same* type; they already know it's not like Harvard. But this does not preclude the development of a strong liberal arts program in any setting, for its own sake. The question is, how is such a program to be implemented where it does not already exist.

The history of higher education in the United States offers a number of outstanding examples to support the thesis that institutional change is determined by the efforts of outstanding educational leaders. Gilman at Johns Hopkins and Eliot at Harvard are instances that come at once to mind. The illustrations are not all historical: Hutchins provides a more recent example at Chicago, and the files of the self-study reports prepared for the Fund for the Advancement of Education contained instances of several current situations not yet a matter of historical record.

In each of these cases a vigorous, almost charismatic, leader has been able to bring about a radical and enduring organizational change. Their exceptional personal talents were assisted in part by the setting from which they emerged: relatively small institutions, already oriented to some degree towards innovation.

The administrators of a large university have little to learn from these examples. The very size of such an organization makes it unwieldy. At any point in time at least four-fifths of the faculty can be characterized as victims of the organizational apathy peculiar to large bureaucracies. Issues are difficult to raise in such a setting, and are quickly obscured by conflicting jurisdictional interests. They are resolved by ponderous, often fortuitous coalitions of allies, each with their own motives, should resolution be necessary by the rare failure of a committee to bury its own dead. Administrative leadership must inevitably become more visionary than vigorous under such circumstances.

Size is also a factor in reducing the effectiveness of other administrative strategies. The far-reaching consequences of a few changes in faculty at a small school are scarcely felt at the big one; it is, in any event, a slow and costly process.

The answer must lie in somewhat arousing even a large faculty to the point of seeking out change. People like Rieuman, or Boroff, have found that their candid comments on some of our universities have provoked intense faculty reactions. But the reactions have been directed towards the commentators, rather than towards the conditions they portrayed. Anything which touches the self-esteem of the faculty will elicit a strong response, but remarks made by an outsider are easily dismissed.

The college self-studies of a decade ago were expected to be productive insofar as the criticism was to come from within, but the machinery for self-examination at the large institution quickly blunted or smothered its purpose. What is needed is some mirror which reflects clearly and truthfully, and which is not being held in position by some special interest likely to divert the attention of the beholder.

The descriptive data available through the use of the Activities Index and the College Characteristics Index seems to offer a practical way of meeting this need. When some 85 per cent or more of the respondents at any given school respond in the same way to the same item, we can be quite confident that they are telling us something which is true either of themselves as a group or of the institution as a learning environment.

The image obtained from this source is neither an interpretation nor an impression, but the collective perception of active participants. Because of the variety and the detail built into the items, the responses provide answers

to specific questions of concern to the faculty. Different aspects of the same institution may be examined by comparing the responses of various segments of the student body, helping to clarify differences in the kinds of experiences offered to students majoring in different fields, at different levels of matriculation, varying in scholastic aptitude, and coming from different backgrounds.

By modifying the instructions to indicate expectations rather than actual experience, the groups reporting on the institution may be broadened to include freshmen, parents, high school students, counsellors, and others who stand in a similar relationship to the school.

These kinds of data may prove useful in contributing materials for the analysis of existing programs. The availability of directly comparable data for selected groups of student bodies and institutions has also been found of value as yardsticks, if not benchmarks, appropriate to different types of colleges and technical programs.

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"No one has the power to take positive leadership in the development of the university as an integral enterprise"—this is how the author concludes his vehement and unusual appraisal of the contemporary university scene.

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The Problem of Leadership in the University *

I present seventeen propositions concerning the leadership situation in the modern large university. These propositions were derived from a study of one institution; the results of that study are reworded into propositions so that they might stand as challenges useful to others in the appraisal of their own situations and views.

The propositions fall into three sets, the first relating to a split in the university community between teaching and research, the second relating to fundamental shifts inside the university since 1900, and the third relating directly to the leadership situation.

The propositional form allows me to convert my observations of one situation into a frame of reference by which other men may check their own views. It is not important that others agree with me; what is important is that every university open its eyes to the reality of its situation, whatever that reality may be. Leadership is a crucial problem.

* This article was originally given as a paper at inter-institutional seminars on "Research in Educational Administration," sponsored by The University Council for Educational Administration. It will appear shortly in a book entitled *Educational Research: New Perspectives*, to be published by Interstate Printers and Publishers.

PROPOSITIONS RELATING TO THE SPLIT BETWEEN TEACHING AND RESEARCH

Proposition 1—Present day research is a new development having its own special roots; powerful precedents have been set by the way in which research has been financed in the country since the war.

When contracting agencies of government or industry have given money for research, they have stipulated the categories within which the proposals may be offered and they have reserved to themselves the power to accept or reject each specific proposal. When Congress sets up money for research, it stipulates the categories in which money can be spent and it sets up its own specific agencies to pass on the specific proposals submitted. When the state legislature gives money to the university for research, it, too, stipulates the categories in which the money is to be spent. Private foundations use the same pattern of thought. All along the line, the precedent has been set that those who have the money have the power to control the specific research which they purchase.

These recent precedents do not include arrangements for using outside money to back the universities, as such, for what their professors, out of their own wisdom and experience, shall name as good research to be doing. The universities have been by-passed as agencies adequate in their own right to determine what research to do. They are seen by outside agencies as pools of people available for use as these agencies see fit.

Proposition 2—Responding over a number of years to these precedents in financing research, we have accepted them as valid for determining how we should administer our own funds when we are free, within the university, to do as we wish.

To administer "free money for research," we set up central university committees to which we give the power to approve specific proposals. Administration is not through the regular lines of the budget (i.e. president, deans, department chairmen, faculty members) but through committees, authorized by the faculty to operate out of the office of the president.

Control by these committees is absolute. Though the university might have viewed these groups as responsible for the legislation of principles and policies, leaving the responsibility for judgment and administration of specifics to normal channels of authority, the university has not done so. It has given the committees total power, legislative, judicial, and executive.

Faculty members who obtain help for their research, whether through local committees or outside agencies, therefore do so by special channels, separated from their normal departmental routes. Department heads and deans, though they see the papers passing through, tend to become spectators of a separate operation in which they have no crucial part. Department heads

tend to restrict their views of themselves to that of being supervisors of arrangements for teaching, letting research become what it will as individual faculty members are motivated and controlling committees decide. A coordinator of research, acting for a dean at the college level, becomes little more than a communicative agent, serving between two poles of power, one held by the individual faculty member who has the power of initiative and the other held by the agency which has the power of specific approval. Neither department heads nor deans have real leadership potential in this matter, nor realistic capacity to take responsibility for the integral functioning of the university activity.

Proposition 3—Two systems are developing, side by side, in the university, one for the normal lines of budgeting and responsibility centering on teaching, and the other for special agencies and operations centering on research.

The former is embedded in the historical and philosophic tradition of the university as an agency independent of all others, free and responsible for its own evaluations, and the latter is embedded in a newer perspective of the university as dependent on other agencies and responsible for serving their interests.

The split shows up in a number of ways. The word, "research," is becoming attached to the kind of inquiry a man can get special allocations of money to do. The tendency now is to conclude that a man is not doing research if he does not have special money to do it. The vitality of inquiry as an essential ingredient in the efforts of professors in *all* university disciplines is weakened as the spotlight goes to those who have the special funds.

Research becomes a game of specialization, specialization in knowing the particular frame of mind of particular committees and agencies, and specialization in knowing the kind of research which is regarded as good by these bodies. As money flows from the bigger agencies into the research valued by them, the research which is produced increases sharply in volume such that ever more specialization is needed just to keep up to date in the rapidly moving field. Full time attention is needed by increasing numbers of staff, relieved of other university operations for research work.

With research focusing on the concretions of specific projects and specific men, the definition of what is "good" in research shifts inside the university from a more generalized meaning applying to all university disciplines to a more restricted meaning derived from the characteristics of the projects and men, the definition of what is "good" in research shifts inside the university vividly to light in the way the central university committee behaves when passing judgment on the specific proposals submitted to it.

The committee is made up of individuals from a wide variety of disciplines. When met with the necessity of passing judgment on proposals from a score or more of different disciplines, the individual members quickly sense their personal incapacity to make judgments of proposals in those fields in which they have no professional authority themselves. Being men who want to be fair and just, and who are sensitive to the criticism of colleagues whom they may have to turn down, they come under great pressure to find a consistently operating procedure which makes them as safe as possible. The line of safety is most evident in agreement among themselves that all projects shall follow what is currently called "good methodology."

Perspective on "good methodology" derives from pooled experience in the bulk of research in the university. Since World War II, this experience has come through contract research, emphasizing technology and the natural sciences. When committee members are faced with research proposals which are humanistically or holistically oriented, as much research in the social sciences, humanities, and arts necessarily needs to be, they do not see the "good methodology" they are looking for in their safety zone; they feel inept, uncertain, and vote negatively. Certain areas in the university community, therefore, suffer while the areas which have had the most support from outside funds to date tend, again, to be the ones to receive favor in the eyes of the central university committee.

In this way, the values of agencies outside the university have come to dominate the values of the university itself. We are being led by outside money; we do not adequately maintain and assert our integrity as university men directly responsible for wise and balanced leadership of the minds and values of men. We have abrogated our responsibilities even when we have had the chance to accept them in the administration of our self-controlled funds.

We have come to a situation where the integrity of the university enterprise is being challenged in the value splits which modern pressures have introduced and which we, more unconsciously than consciously, have further supported by our own policies.

Proposition 4—Our willingness to go along on the split between teaching and research is understandable in the light of several contributing conditions inside the university and out: academic status of research, competition from outside the university, inflation, service in the cold war, costly research in the technologies, public acclaim, inflationary enrollments, research specialization, inter-departmental financing of research, precedent from gifts, and the recently heightened value of the good teacher.

1. The academic tradition implies that every professor should be a re-

search man and that highest status in the university is to be given to those men who turn out the most or best research; promotions are used to support this policy; research has a prime value.

2. In industry and government, new opportunities are being offered for full time research without teaching; this offers both competition and a model for the complete separation of research and teaching.

3. In an inflationary economy, with lagging pay scales, faculty members need supplementary income; outside research money offers that opportunity.

4. Money for contract research is often tied to loudly proclaimed and genuine needs of the nation for survival in a cold war world; doing such research is an obvious service to the nation and thereby personally satisfying in ways competing with personal satisfactions from teaching.

5. Much research is quite expensive, particularly in technological lines where national interests are most obviously focused; special funds, set aside specifically for given work, are necessary to get the research done.

6. Many faculty members who, heretofore, found themselves unheralded outside the cloisters of the university now find themselves wanted in the big world beyond; this is stimulating to many who, having been taught by the general culture in America that he who joins a university staff does so knowing that he thereby sacrifices all right to the prospect of general public acclaim for the possible acclaim of his esoteric group, now sees he can have both university acclaim and general public acclaim; how good!

7. Inflationary enrollments put pressures on faculty members to increase their teaching loads; faculty members need obvious protection against such pressures in order to do research; project administration of research provides that protection.

8. Fields of knowledge are rapidly increasing in complexity; specialization in research is often necessary at a level beyond that which can be readily shared with undergraduate or graduate students; protection for research beyond teaching usage is necessary and available in project packaging.

9. Since much research is now inter-departmental, the traditional lines of financing by departments no longer works. Project financing provides flexibility to fit inter-departmental situations.

10. The first moneys for research have been gifts in which the donors could feel satisfaction if they could see the specific results of their donations; specific research projects allow the donors this satisfaction. The same precedent serves for contract research.

11. Income from gifts and "profits" from contract research have been too small to amount to anything worthwhile if distributed over the full range of departments and faculty members; project administration of research money avoids the problem of fruitless scattering.

12. Although research, by tradition, is highly valued, teaching is also highly valued; as enrollment pressures increase, as fields of knowledge become more complex, as curriculum problems become more severe, and as research men leave teaching to do separated research work, the good teacher becomes a freshly valued man; in this line of reaction, some administrators and some teachers now choose to put higher value on teaching than on research; the split between teaching and research becomes an open and contentious issue, with defenders on both sides.

Many conditions, inside the university and out, are therefore contributing to the split between teaching and research.

There are further conditions contributing to further splittings in the university community, evident in the story of what has happened to power in the university community in the course of this century. There have been fundamental shifts of power since 1900.

PROPOSITIONS RELATING TO FUNDAMENTAL SHIFTS INSIDE THE UNIVERSITY SINCE 1900

Proposition 5—Power to integrate the internal operations of the university, according to tradition, is lodged within the assembled faculty; the tradition is based on an era which is no longer dominant.

Tradition grants power to the faculty of a university to design the operation of the internal affairs of the university. The professors are seen as professional men who, like other professional men, are given freedom and responsibility to make their own judgments of what to do. They are not subservient to any other agency; their discipline derives from their professional ethics and their common loyalty to the general welfare. A board of trustees is necessary to provide a channel for support from society, but the board's power over money is not to be used as power to control its substantive use in the academic program. The latter is the responsibility of the faculty.

This tradition was established in American higher education well before 1900. Institutions were then small. (The average size of the twenty universities having the largest staff was 255 in 1901.) It was psychologically feasible to vest power in the faculty working as an assembled body. The individual faculty member, in the normal range of his daily experience, could be expected to confront the diversity of interrelated problems with which the institution was faced. When seated with the assembled faculty to make an institutional decision, he could honor the integrity of institutional operation by virtue of his capacity to render holistic judgments, foreseeing the multiple consequences of potential decisions on varied aspects of the university. The faculty could see itself functioning as a community and could operate as one

because its individual members could comprehend the totality within their concrete personal experience.

With legislative and judicial functions carried out by faculty assembly, the executive and leadership functions could be carried out by personalities cast in the role of representatives of the faculty. Department chairmen could be clearly perceived as chairmen, responsible to their departmental staffs for fulfilling the expectations of the faculty group. The president of the university could be construed as the faculty man whose business it was to fend for the faculty when facing the world beyond the campus. The community was small enough to make personal acquaintanceship possible among most of its members so that those given leadership posts could be seen as persons personally responsible for the welfare of one another in the total communal enterprise. Authority was given by the group; neither specialization of function nor other separation was then sufficient to put administrators in a class apart from the personal and direct claims of the individuals in the group. The rules of the game were those of a personally responsive morality.

In such a cultural context, the image of the university as an institution-run-by-its-faculty was born and consolidated into the lore of higher education. Faculty members, not being granted top status by those in the broader society, could in this way claim top spot for themselves in a community run by themselves. To this image was attached a series of rationalizations about the sanctity of the academic function in a society, aimed at preserving the virtue of the university-in-its-own-right, regardless of the projections of a society upon it. Within this body of rationalizatons, the professor could assure himself of his own virtue whether society had the good grace to acknowledge it or not.

Proposition 6—The faculty, today, faces a world beyond the campus which has undergone profound changes and which has brought about consequent changes inside the university.

The world has undergone war, depression, war and an uneasy peace. It has proliferated a powerful technology, realigning values of education according to need for advancing training in new occupations. New professions have become necessary as complexity of the social and intellectual order has accompanied the complexity of economic production and consumption. As the people have changed in their needs and in their perceptions of preparation for life in the modern world, the universities have changed from small to large, from simple to complex.

Since World War II, these changes have accelerated at a nearly exhausting pace. In the private speech of conscientious leaders of higher education, a deeply plaintive note now commonly appears as they struggle to gain com-

manding perspective and intelligent control of what is happening inside their institutions. The note of plaintiveness derives from a feeling not only of having gotten behind in the game, but perhaps of having lost the ball altogether.

Proposition 7—The university has lost access to a center of responsive power.

What was formerly taken as a clear center of power, i.e. the assembled faculty, is no longer an effective instrument for making institutional decisions. It is too big, too diverse. (The average size of the 20 universities having the largest staff was 2020 in 1958.) If the faculty were assembled, its individuals would not be sufficiently holistic in their experience of the total situation to be able to judge with confidence the best course to take in many, if not most, of the situations presented.

In lieu of government by the total faculty, what has evolved by a series of accretions are several smaller faculty units set up to carry out specific responsibilities of the institution. Typically, a university has a sizeable faculty council, made up of representatives of the academic staff, to take up the prerogatives formerly held by the total faculty assembly. Feeding into this council are a number of sub-councils, made up of appointive and ex-officio personnel, taking responsibility for monitoring different major functions of the university. Chief among these are councils on instruction, research, off-campus services, athletics, and graduate affairs. Subordinate in the total complex are still further councils, committees, boards, and institutes (e.g. library councils, committees on student discipline, admission boards, institutes for research). Such units overlay or cross through the traditional colleges, schools, bureaus, experiment stations, and departments.

As these varied agencies of academic power act, it is necessary, of course, to have further agencies to carry action into daily operation. The traditional administrative offices of president, deans, and department chairmen, largely adequate for administration in 1900, are no longer adequate. New offices, centers, and services are necessary. These tend to be grouped according to major functions of university operation, being formed into such areas as those of curriculum, research, and public relations. Manning these units are vice presidents, executive heads, personnel deans, directors, and supervisors. In large universities, mere naming of the university's legislative and administrative agencies and their personnel can take twenty pages in a campus directory.

Proposition 8—With academic power and operational responsibility divided and subdivided, again and again, the image of the university as an integral community progressively dissipates.

Faculty members tend to give up their responsibility for an integral community. They turn over to student personnel offices the responsibility for

guidance, counseling and care of the students, retaining the teaching and grading of students on work done in their courses, feeling that these activities are now their sufficient obligation to students. To curriculum committees they turn over the responsibility for making sense out of curricular patterns, feeling that, as individuals, they lack the information necessary to really know what makes sense for the students beyond the limits of courses in their particular areas. To the council on research and related bodies, they turn over the responsibility for designing the administration of research activity in the university, feeling their individual interests are met if they can but know the lines by which they can submit their own research proposals. To the university office for long-range planning, they turn over the large responsibility for designing the university of the future; this problem is much too large and complex to hope for personal mastery, given the work a faculty member is expected to do in classes and research. For the rank and file of the faculty, their original holistic authority is now divided, delegated, and significantly abrogated.

For those who undertake leadership in the development of the university, these divisions of responsibility have their consequences. To illustrate by an example: A new building makes possible added space in order that a given instructional area may round out its program for its major students. The office of space utilization, wanting to do its part in developing the university's program, allocates the necessary space. The business office, seeing that space is possible and also wanting to do its part, grants the necessary funds for requisite new equipment. The council on instruction then receives from the department their request for the new courses which the space and equipment now make possible. The council, acting from its perspective and with its portion of power, denies the request. The actions of the business office and the office of space utilization are thus nullified. Their administrators, taking forward steps in the light of their portion of perspective and power, have done useless work; so also have the department chairman and his faculty.

One might observe that this situation could have been avoided had there been "better management," i.e., had the department cleared with the council first. The catch is that the council, had it been favorable to the new courses, would not have approved them without evidence that space and equipment were available to teach the courses properly. Practically, it makes little difference which one of the various parts of the power structure one touches first; in the end, the full complement is necessary. Any one part can deny and negate the rest. Parts of the whole continually do so.

In this circumstance, it is remarkable that universities get on as well as they do. The fact that this is possible is a tribute to the operational capability of those in administrative and faculty leadership roles. These men are to be

commended for their personal strength, their self-sacrificing devotion to the institutional game, their willingness to give unending hours of personal time to patching up, bridging over, and preventing from happening what otherwise is built into the system to happen.

And yet one wonders. The success of these men in preventing institutional failures may be the main factor in blinding the university community to its true situation. Members of the faculty are already eager to believe that the university is all right as it is because they are already giving their professional lives to its activities. To see the university as self-defeating is close to seeing oneself as, *ipso facto*, defeated too. This is an uncomfortable thought; a shield from the truth is useful; capable office holders provide that shield. Faculty members can go on in their unexamined world without asking the critical questions and the office holders can use faculty blindness as support for their own. Two layers of blindness are easier to support in the top echelons if the faculty provides one at the bottom. The natural inclination of all members of the official family of the university community is not to see the reality of the institutional situation.

Yet the reality is that cultural changes have produced a progressive division of power and responsibility within the university which culminates in a condition in which no one can take positive leadership.

PROPOSITIONS RELATING TO THE LEADERSHIP SITUATION

Proposition 9—Neither faculty men nor administrators now feel that they can take leadership command.

The rank and file of the faculty feel they cannot take leadership because they do not own enough of the total complex of the community to make their efforts significantly effective. Administrators feel they cannot take command for the same reason plus another reason, i.e. that it is the faculty and not the administrators to whom tradition has granted ultimate authority to shape the basic affairs of the institution. Administrators can take responsibility for the management of enterprises already agreed upon in the university community, but they cannot presume to take the prerogatives of final academic authority.

Further debilitating the capacity to act on the part of either the administrator or faculty member is the latent feeling that even if a man were somehow to acquire full leadership power, he would not really know what to do with it. The ramifications of significant decisions in the total complexity of the university community are too broad and entangled to be intellectually comprehended by any one man. Without significant intellectual command, confident social command is not possible either. The safer alternative is to

retreat inside the limits of which one can be sure, i.e. for the faculty man to retreat to the confines of his classroom teaching and project research, and for the administrator to retreat to the management of activities clearly accepted as inside his established official domain.

Proposition 10—With shrinkage in sense of command, there is shrinkage also in sense of ego, leading to resentment and a split between faculty and administration.

Faculty members, nourishing themselves on inherited visions of the pastoral campus in which the professor's way of life was the dominant pattern and the professor the dominant figure, find their loss of command a hurtful loss of ego. Resentment, easily nourished, searches for a target. Serving this purpose admirably are the administrators, who, increasing in numbers, become ready symbols for competencies now required which the professor does not himself now possess, and symbols, too, of outside pressures which seem constantly to be forcing their way into the traditional domain over which the professor had thought himself entitled to full command. Administrators, seeing themselves primarily as agents serving the cause of the academic man, have the right to expect from professors, not resentment, but expressions of gratitude for services rendered in behalf of the academic cause; receiving few such expressions and often meeting evasiveness and subtle resistance instead, administrators can easily return the barely disguised resentment which they sense in the faculty with observations of their own concerning those in the ranks who project blame on administrators while themselves dragging their feet, protecting their personal interests, and failing to meet the conditions of the real world. A psychological wedge is driven between faculty and administration.

Proposition 11—The split between faculty and administration is complicated by other cross splittings.

If the split between faculty and administration were consistent and uniform, one could work on the problem by direct attack. But there are further complications as administrators for university services confront administrators for the colleges and departments; as administrators for a college or department confront administrators of other colleges or departments; as faculty sub-groups responsible for the instructional function confront faculty sub-groups responsible for the research function; as faculty sub-groups responsible for undergraduate work confront faculty sub-groups responsible for graduate work, and so forth. In day-to-day situations, lines of loyalty are not simple or clear. Allegiances realign themselves in diverse ways as diverse issues and problems arise.

Proposition 12—A psychology of management takes over; leadership is choked out.

A would-be leader, conscientious, able, and devoted, can find himself fully occupied in adjusting himself to the constant flow of realignments as various forces inside the university recompose the vectors and valences affecting choice. Keeping in position for effective choice becomes a goal. Management ideals subtly but effectively replace leadership ideals as men give up the struggle with the complexity and ambiguity of the whole for the safer confines of a partial, already accepted and specific office function.

For the would-be leader who finds himself cast in the role of manager of particular operations, there are seductive compensations. Though he has had to give up his dreams of positive leadership in the university as a whole, he finds he has great negative power; this is recompense. Though he can't lead the university in any comprehensive way by himself, he can stop what others start. The success of the whole depends on his willingness and ability to contribute *his* part. The institution can't move far without him. Even if he lacks power to create, he holds power to prevent or destroy. He can remind other functionaries in the system that his participation is necessary to the success of their schemes. He can enter and withdraw from coalitions. He can add to his power by further specializing the functions inside his office operations, each new strand of operation making for a wider range of control of the whole since each strand is a negative power, without which the rest cannot function. Newly identified operations also offer opportunity for hiring new personnel. These are the familiar temptations and tendencies present in bureaucracy, present also in the modern large university.

Proposition 13—Amid these institutional and cultural complexities, the faculty faces the future with uneasiness; their mood is quickly turned to irritation in the face of any new threats to present or traditional claims.

Confronting obvious pressures for a still larger and still more complex university, the faculty senses still further loss of command, ambiguity of choice, and expansion of an intruding managerial class. Professors are more impressed with what they have lost, as measured against their dreams of academic life, than with what might be gained, as measured against the potentialities of the future. Confronted with proposals for change, they are sharply conservative, whether the proposals be for changes in the curriculum, in the form of university organization, or in designs for the future campus.

When assembled in groups where their feelings can gain by contagion, their attitude toward students can approach punitive proportions in jacking up grading standards, tightening course requirements, and raising entrance barriers. Over these matters, the academic man can claim incontestable au-

thority because the handling of students in classes is his business and no one else's. Under conditions where enrollments bid fair to be significantly greater than resources can accommodate and the public is forced to know it, the academic man is in position, new to him in many universities, of being able to meet pressure from outside with an equal or greater pressure from inside. This time, he can make the *public* change while *he* sets the conditions. This position of power feels good, oh so good, as it does to any marginal cultural group newly arrived in a position of dominance. There is considerable resentment stored up in academic men and using the most direct route for exercise of their authority, they are tempted to take it out through tightened standards on the students.

Expression of resentment can take other routes too. Should questions of policy come up in connection with the control of athletics, the faculty is prompt to name itself as ruler over these issues, defying plebians outside the cloisters to intrude their claims on athletics in the institution. When neither students nor obvious outsiders are available as targets, the faculty will turn on its own membership, seeking those who are involved in the newer enterprises of research and service which do not fit easily in the traditional pattern of the teaching departments, denying to these men the traditional ranks and titles of the professor unless they are invited by the teaching departments to membership there, thus to guarantee commanding status and control by the present majority against the frightening and prospective day when intruders from new enterprises might conceivably be sufficient in number to make good their claims to the university as their rightful home, too.

Proposition 14—Ever wary of administrators, the faculty guards against administrative initiative by asserting their power in councils at the top echelons of authority.

Gaining power by delegation directly from the ranks of the faculty, the councils effectively by-pass the line administrators in dealing with the most important questions. The line administrators represent power intruding from outside the system, powers of denial and affirmation on budget, and powers for making commitment to outside forces which may change the obligations of professors in the system without their initiative or consent. The faculty would rather trust delegated groups of their own kind, even though they may not know these individuals personally, than trust their administrators who are known to them personally, who are constantly on duty, and who would seem, on many grounds, to be men from whom they could expect trustworthy and intelligent leadership.

The power of these councils is complete; legislative in that they form policies and principles, judicial in that they judge the acceptability or non-

acceptability of specific cases (courses in the curriculum, projects in research, and so forth), executive in that they instruct their administrators what to do in carrying out their actions. Insofar as line administrators enter the process, they are perceived as entitled to do so only in their role of agent for the faculty group with whom they work. This is true not only for the department chairmen at the lowest echelon, but also for the vice presidents who sit as chairmen of the sub-councils (instruction, research, and so forth) who are perceived by the faculty as administrative agents for carrying out the will of these councils. In the case of the faculty council at the very top, the president, as chairman, is also perceived by the faculty as administrative agent for that group.

Proposition 15—The tendency of the councils and the administrators serving them is not to act.

It is the obvious course of political wisdom for an administrator who is perceived as serving the interests of a council to make it clear that he honors and serves the interests of the faculty. An administrator who not only makes this clear but who goes further to summon up an appeal to the sense of loss of the faculty, its frustrations and insecurity, can become a powerful figure, the symbol of the faculty's man. He can keep safely in this role by channeling decisions to the faculty group with which he works, being always careful to make plain that it is the group and not he who carries the power and responsibility.

The fact that decisions pile up in bunches, unmade, is hardly noticed by the administrator or the faculty as long as a feeling of identity in mutual involvement is maintained. For an administrator whose temperament leads him to behave in this fashion, decisions are likely to be difficult since they often mean that some faculty members are likely to be hurt by many of the necessary choices; no faculty member should be hurt if it can be avoided and it can often be avoided by failing to act on the problem. Administrative indecision and inaction thereby becomes readily sanctified as part of the pattern, sustained by emotional ties to the faculty.

Proposition 16—What administrators cannot do through work with their councils they cannot do "down the line" either.

Since authority of the line administrator has been bypassed in the delegation of faculty power to the councils on important questions, what is left to the line administrator is management of what is already accepted as within the practice of the institution. This is evident when the president assembles his deans in an administrative council, or when the deans assemble their department chairmen in their executive committees; these bodies turn out to be assemblies of men primarily concerned with specific problems of mak-

ing the institution run. Reviews of their minutes will reveal their problems to be the handling of such matters as the academic calendar, the filling of classes with necessary teachers, the provision of necessary equipment and housing, the control of student traffic through the curriculum, and the building of budget, as requisites to the continued and smooth operation of the university.

Proposition 17—Administrators, frustrated and seeking an outlet, turn to the companionship of their office staffs and to the occasional use of their power over budget, but without significant effect in the leadership role.

Without a sense of progress in work with faculty councils, administrators turn easily to the formation of "councils" of their own, i.e. the members of their own office staffs, where the administrator's authority is direct and where there can be the comfort of a common recognition of common frustrations. Office staff meetings can benefit the management of the office and its divisions, but they offer no solution for problems which require give and take through the line with the faculty. Seductively comfortable, they offer a constant temptation to the administrator to give up his struggle to take university leadership and to settle for managing his office.

When feeling the pain of frustration, the president and deans may occasionally put forth considerable effort to make their power for development and change felt through the use of the budget. The budget is the carrot and whip of the line administrator. But without related control also of the curriculum, personnel selection, promotion and general institutional policy, such efforts at the level of mountains usually produce results at the level of mole-hills. An administrator who uses manipulation of money as means to the manipulation of faculty soon finds himself getting the deepest of resistance. He has gone beyond the code of the academic man. He is much better off to avoid all appearance of manipulating the budget to manipulate men; the better out is to make quite clear to the faculty that he had no choice in budget; he has merely met the necessities of obvious demands, working by formulae and following precedent.

CONCLUSION

The net effect of all these conditions is that no one has the power to take positive leadership in the development of the university as an integral enterprise—not the line administrator, his staff, the faculty councils, the departments, or the colleges. Such power as any individual or group possesses is functionally negative with respect to the whole, fully effective only in denial

of what others may try, destructive of initiative and integration, self-propelling into further snarls and splits, productive of deeper paralysis.

A man who would lead in the development of the university as an integral enterprise is met with an impossible situation. He cannot take an official position and *be* a leader. The system, as given, will not permit it.

If, in your perspective, you see positive leadership to be possible and present and adequate, then where does it show? In what circumstances? In what men?

Compared with the early colleges today's universities carry out a greatly increased variety of tasks. The development of organizational structure has not kept pace with these multiplying functions. The author calls the resulting disparity an "organizational lag" and finds it to be the source of tensions and malfunctioning within the university.

NEAL GROSS

Harvard University

Organizational Lag in American Universities*

DISPARITIES BETWEEN GOALS AND STRUCTURAL ARRANGEMENTS

Nearly twenty years ago Logan Wilson said in the closing pages of *The Academic Man*: "Most astonishing of all, with notable exceptions, is the lack of systematic investigation that professors have made of their own occupational culture. They seem to assume that the main facts affecting scientific and scholarly enterprise are those stated in published methodological prefaces and introductions."¹

In recent years there has been a growing number of important explorations by social scientists into the academic world. Lazarsfeld and Thielens² have analyzed the pressures and attacks on higher institutions of learning during the post war decade and have isolated a number of factors related to the apprehension experienced by social scientists. Sociologists and social psychologists have studied the academic market place,³ forces influencing the socialization of medical students,⁴ the influence of peer groups on college stu-

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dents,⁶ the impress of college cultures and sub-cultures on their students,⁶ "the referent groups" of college and university personnel,⁷ and many other problems⁸ of the higher institutions of learning. Each of these contributions has enlarged our understanding of colleges and universities as complex social systems and of external and internal forces influencing their functioning.

In reflecting on this growing and impressive body of literature and on the history of American higher education, I have come to feel that considerable light might be shed on certain basic problems of the universities through systematic inquiry into changes in their goals and organizational arrangements available to accomplish them. This sociological perspective raises the following kinds of question: What changes have occurred in the organizational objectives of the universities? What kind of division of labor has developed within them to accomplish organizational objectives and to deal with their central problems? Has the role of academic man become redefined? What shifts have occurred in the authority structure of the universities? Are present organizational arrangements adequate to meet the multiple responsibilities that the universities have assumed?

To stimulate thinking and inquiries directed at these issues I propose: 1) *to suggest some of the basic organizational changes that have occurred in most of the major private and state American universities, and 2) to examine some largely unexplored consequences of these changes for their functioning.*

Because hard empirical data bearing on most of the issues is scarce this discussion should be considered as primarily a speculative treatment of certain social structural sources of stress in most leading American universities. The analysis represents an exploratory effort to make probes into a highly complex problem area and deserves to be challenged at every point in its development. My objective is to demonstrate the potential utility of a sociological perspective in examining a selected set of problems confronting the higher institutions of learning.

ORGANIZATIONAL CHANGES IN AMERICAN UNIVERSITIES

Organizational Objectives

The starting point for this analysis of changes in the organizational structure of American universities is an examination of their goals. To gain a historical perspective on present day objectives I shall examine the goals of some of the small colleges in the latter part of the eighteenth century that were to emerge as major American universities.

Yale's printed regulations viewed it as a place "wherein youth may be instructed in the arts and sciences, who through the blessings of Almighty God, may be fitted for public employment, both in church and civil state." The

Dutch Reformed Church founded Queen's College in New Brunswick, New Jersey in 1770 "for the education of youth in the learned languages, liberal and useful arts and sciences, and especially in divinity, preparing them for the ministry and other good offices." The charters of the colonial colleges and their curricula indicate that their basic objective was to provide a classical and literary education for those who would assume positions of leadership in the ministry and civil government. No special vocational or professional education was provided. The colleges were concerned primarily with the development of character and the transmission of knowledge, not its advancement. They were concerned with general education—not the education of specialists. In short, the colonial colleges that later became universities were single purpose institutions dedicated to the transmission of classical knowledge to a select clientele.

The intellectual ferment in Europe and the changing economic and social structure of America, however, were to exert a profound influence on the objectives of the American public and private universities that came into existence later in the nineteenth century as well as on the church controlled colleges that later grew into universities. I cannot trace these historical developments⁹ here but do wish to examine their outcomes.

Whereas in the eighteenth century the embryonic universities viewed as their major goal training of students in the classical and literary curricula, today most American universities offer specialized undergraduate programs to students who are preparing for jobs they can immediately assume after completing their course of studies, for example, business administration, teaching, and engineering. They also continue to provide a general education in the arts and sciences for those who do not desire occupational specialization in their undergraduate work. At the graduate and professional school level the university provides "the trained capacity" for those who seek to enter the professions and the world of science and scholarship.

But in addition to the varied and complicated instructional programs it offers the university has also taken on a second function to which many of its personnel give primacy—the advancement of knowledge. Its highest degree is a research degree. The increasing importance of the research function is seen through university budgets. The money spent on research has skyrocketed—from 27 million dollars in 1939-40 to 734 million dollars in 1957-58, an increase of 2600%.¹⁰

Another important function of the American university today is service to its external environment. This takes many forms—consultation and advisory services to agriculture, industry, all levels of government, and the public schools. As the problems facing our society no longer lend themselves to simple solutions but require expertise to deal with them the universities have

taken on, usually quite willingly, the obligation to provide a host of services that its skilled personnel are uniquely equipped to perform. And now a new dimension to the organizational goals of universities is being added to their responsibilities—their international obligations.¹¹ Nearly all large state and private universities hold contracts with governmental agencies such as AID or private foundations that reflect their commitment to diffuse or develop knowledge abroad. Universities have changed from single to multi-purpose organizations.

Have structural arrangements within them kept pace with their expanding organizational objectives? Do these several objectives collide or conflict with each other in ways that are dysfunctional for the organization and its personnel?

Division of Labor Among Academic Personnel

The history of higher education in America reveals that the universities experimented with a variety of schemes to cope with their expanding objectives. But the dominant pattern that was to emerge can be traced directly to the Harvard reorganization of 1890 when President Eliot made the Faculty of Arts and Sciences responsible for all non-professional education at Harvard from the freshman year through the Ph.D. degree. This reorganization scheme also placed responsibility for both teaching and research in the same faculty members.

Gilman had vigorously opposed such a plan for Johns Hopkins. Harper at Chicago also had separated advanced instruction and research from freshman and sophomore teaching. But largely as a consequence of Harvard's prestige in the academic world in 1890 its decision to define a professor's role as including both the teaching and research functions set the pattern for most of the universities. As Cowley has indicated, there was another reason for the diffusion of the Harvard model:

The state universities, at that time just emerging as important institutions, followed the Harvard pattern not only because of Harvard's prestige but also because the pattern proved more economical. . . . The state universities did not have to go to the legislatures for both research and teaching funds.¹²

The basic approach adopted by most American universities has not been a functional division of labor among the members of its faculty—different portions of its *permanent* staff assigned to the teaching of undergraduates, to training graduate students, to research activities, and to the service function. Rather, the basic pattern has been the gradual redefinition of the professor's role to include all of these tasks. Although there are some notable exceptions, most professors on tenure in the faculties of arts and sciences are

expected to teach graduate and undergraduate courses, carry out research or scholarly inquiries and write them up for publication, provide consultant, advisory or other service functions related to their specialties, as well as advise undergraduate and graduate students, supervise doctoral theses, and serve on departmental, graduate faculty, and university committees. And the same conditions largely appear to exist in the professional schools at the universities. The same individuals who are expected to provide professional training are also expected to advance knowledge in their field and to improve professional practice through consultation and advisory services to those that need or demand them in the extra-university world.

In short, the academic role has been gradually redefined to embrace the variety of diverse tasks that the university has assumed. Whereas other establishments have characteristically met similar situations with increased specialization and further division of labor, the university has primarily chosen the path of adding function after function to the tasks of the same personnel.

The Reward System

As the universities assumed new organizational objectives and enlarged the scope of the role of academic man to cope with them, there seems little question that the primary criterion used to evaluate his performance has become his research or scholarly productivity. Five years before the close of the nineteenth century we find evidence of the importance that was to be attributed to competency in research and investigation as the measuring rod for academic man. President Harper of the University of Chicago wrote in the *University Quarterly Calendar* in 1895: ". . . the first obligation resting upon the individual members who comprise it [the faculty] is that of research and investigation."¹⁸ Whether the assistant professor will achieve his permanent appointment largely hinges on judgments about his potentialities as a productive scientist or scholar. "Publish or perish" is not an empty phrase but has become a hard reality for those who aspire to permanent positions in the universities. And the pressure does not stop there for upward mobility or the maintenance of status within his institution or within his discipline or profession is also largely a function of research or scholarly productivity.

In short, although multiple functions are expected of academic man, the reward system of the universities gives research productivity and scholarly publication the highest evaluation in the assessment of a man's worth to his institution.

Organizational Substructure

The notion pushed by Harper that the distinguishing characteristic of the university in contrast to the liberal arts college is its concern with the ad-

vancement of knowledge has thoroughly permeated the value system of the universities. Productivity in research and scholarship have become the coin of the realm.

However, although the value and reward system of the university now gives highest priority to the advancement of knowledge among its several objectives, the organizational setup as it relates to *the great majority* of the permanent faculty members in most universities is one that is still basically geared to function as an agency whose primary function is the transmission of knowledge.

The basic sub-organizational unit of the university is a department and the department of a college or school consists of a grouping of faculty members in subject matter areas *for instructional purposes*. The work load of faculty members is usually calculated on the basis of teaching load and teaching is their primary obligation to the department. The basic budgetary allocations are made to instructional units. There is usually little or no money available from the university's funds for research purposes. Research funds are added to the university budget from outside sources such as foundation or governmental grants or grants from industry. And the typical arrangement is that teaching loads are reduced *only when* research grants will bear a portion of the faculty member's salary. And it is frequently with reluctance rather than enthusiasm that reduced teaching loads are granted to the university professor because one of the departmental chairman's major responsibilities is to see that the courses listed in the university catalogue are taught and that teaching responsibilities are equitably assigned.

That the organizational structure of the university is geared primarily to instructional activities is also seen by the anomalous position of the graduate school in most American universities, the organizational unit whose basic concern is with the advancement of knowledge and the production of new research investigators and scholars. Yet, with the exception of a handful of American universities, for example the University of Chicago and Columbia University, the graduate school has no separate faculty of its own, and its small budget normally only covers the administrative costs related to granting advanced degrees. In consequence, although the graduate schools were designed to serve as the unit that would develop the research and scholarship function of the university, deans of graduate schools have largely been unable to take leadership in this connection because they have had no control over fiscal and human resources.¹⁴

Departmental Autonomy

Another major trend in the social structure of the university has been the granting of increased autonomy to sub-organizational units to determine the

educational policies of and programs for their specialized fields. The history of the institutions of higher learning from the viewpoint of control over their *educational programs* has been a continual diminution of control by boards of trustees, presidents and deans and increased control by departments over their academic affairs. Although the charters of most universities clearly make the board of trustees responsible for the conduct of university affairs and the performance of its objectives, the board of trustees has delegated the responsibility for designing and carrying out the curriculum to the president, who has delegated it to the deans, who have in turn delegated it to the individual departments. There was a time in American higher education when the board of trustees and the president in many institutions of higher education gave the oral examinations at the close of each academic year to "the scholars." But the time has long passed when the higher administration directed the activities of departments or the work of academic man. University presidents and deans do not have the time or the competence to guide the work of departments and the specialized academic men in them. The increasing autonomy given to departments to govern their own affairs has been a basic trend in the structure of authority in the university.

Other trends in the changing social structure of the major private and state universities that deserve consideration, but which I shall only mention, are:

- (1) the greater power of the faculty as a body over educational policies affecting the entire university.
- (2) the changing role of the university president so that he now gives primacy to such functions as finance, public and human relations rather than the academic problems of the university.
- (3) the steadily diminishing power of the board of trustees over the internal operation of university affairs.

SOME CONSEQUENCES OF ORGANIZATIONAL CHANGES IN UNIVERSITIES

Dealing with Organizational Problems

We have noted that one of the basic changes in the organizational structure of the American university has been the increased degree of autonomy granted to individual departments over their own academic affairs. The higher administration, the president and deans, exert little or no control over the activities of departments and the work of specialized academic man. The university solution to the *control* problem—give those who have the greatest understanding of the nature of problems in their specialized areas the right to make decisions about the functioning of their departments—appears to be a rational one. Granting individual departments considerable autonomy to determine their course offerings, to specify requirements for advanced de-

grees, to appraise their own effectiveness, and in general to determine the policies governing the departments seems to make good sense. The decentralization principle that sub-organizational units should make decisions about their basic problems because they are most knowledgeable about them has wide currency in many types of complex organizational settings.

The fact that work units are granted considerable autonomy in dealing with their basic problems does not ensure that they in fact will resolve them, be seriously concerned about them or even recognize them. It seems a reasonable assumption that departmental autonomy will result in the definition, examination, and solution of departmental problems only when the following conditions exist: (1) members of the group have a basic concern for the welfare and productivity of the department as a collectivity; (2) the departmental members can work together as an effective unit; and (3) group members have ample time to devote to departmental problems.

I submit that these conditions are the exception rather than the normal state of affairs in most departments. Although the university is organized on a departmental basis and one can speak of a departmental product the producing unit in universities is essentially individual academic man. The most highly rewarded activities, scholarship and research publications, are not departmental products, but the products of individual faculty members. Professors typically tend to think in terms of their doctoral candidates, not the department's doctoral students. And of course the instructional work of the department is basically individualized. The frame of reference of academic man is *his* own specialized area of competence, *his* courses, *his* students, *his* research publications, *his* consulting activities; and the reward system of the university and the disciplines is based on individual, not group productivity.

These conditions tend to result in an orientation of most faculty members to departmental issues they are asked to consider that is typically one of individual welfare—rather than departmental welfare. Although the basic operational unit of the university is a department, the department typically functions as a series of discrete units, individual staff members, who carry out their own independent activities in relative isolation from each other. The nature of academic work itself predisposes toward an individualistic in contrast to a collective orientation. Value conflicts within departments, for example the humanistic vs. scientific cleavage in many social science departments, also tend to result in isolation of many department members from each other. The hardly ever verbalized but ever present competitive nature of the academic enterprise—competition for students, salary raises, research funds, prestige in the discipline—also serves as a powerful force predisposing to an individualistic rather than a collective orientation to departmental affairs.

The role of the departmental chairman is indeed ambiguous in this connection. If he attempts to exert strong leadership, he can usually expect negative reactions from faculty members. If he is a first-rate scholar or research person, he typically cannot wait to get out of his administrative chores. If he is not, he does not command the respect of his academic colleagues.

It is the junior faculty who are acutely aware of these problems. They have the greatest informal contacts with the undergraduate and graduate students. But they do not speak their minds because of status barriers. The route to academic advancement is not facilitated by critical comments on inadequacies of the department that reflect the frequently inadequate assumption of departmental responsibilities on the part of senior faculty members.

There are, however, some departments in universities that do meet two of the specifications posited for productive group action: there is evidence that departmental members do have a strong interest in the welfare of the department as a collectivity and they have developed the characteristics of a harmonious and potentially effective work group. In these cases, however, the third specification is typically lacking: adequate time to devote to departmental problems. The redefinition of academic man's role to include teaching, research, advising, service and consulting activities leaves him little time for the hard work and reflection required to consider intelligently such basic questions as: what type of product shall our department put out and for whom? What skills and knowledge do we want our Ph.D.'s to have and is our curriculum organized so they are actually obtaining them? What should constitute the long range goals and emphases in our department? How much duplication exists in departmental courses? How can we maximize the resources of other areas of the university for the purpose of turning out a superior product? There is little attention being given to these fundamental departmental questions whose careful examination demands large blocks of time of groups of academic men.

Many departments in the humanities, the social sciences, and the professional schools decry the relatively low calibre of graduate students who apply for admission but it is the exception rather than the rule that faculty groups are working on strategies to attract a more able body of students to their departments.

I find little evidence of realistic assessments of work loads—that there may be a difference between the amount of time and energy demanded in teaching a large lecture class and a seminar, that a faculty member directing a large scale research program may have different demands than one engaging in library research, that a professor who has twelve doctoral candidates may be faced with different problems than one with one or two.

Although these are persistent and pressing problems of most university

departments little attention is given to them. The chairman of a department is typically eager to get rid of his administrative chores so he can get on with his own research and writing. The senior faculty members are so concerned with their own special interests and the need to keep on top of the literature and research bearing on them that they have little time for or interest in these issues. The deans of both the undergraduate college, the graduate schools and the professional schools have tended to define their roles to include primarily budget keeping, consultation when their help is requested by departmental chairmen, and the approval of promotions or appointments and a miscellaneous assortment of service activities.

To sum up: There are a number of largely unrecognized forces at work in the universities that tend to result in the failure of departments and professional schools to deal with their basic responsibilities. These are the egocentric orientation of academic man, the reward system of the university and the academic world, the latent competitive nature of the relationship between academic men, their time allocation problems due to the multiplication of their role functions, and the ambiguous nature of the chairman's role.

Achievement of Organizational Goals

Now I should like to turn to some of the consequences of social and cultural change in the universities for the performance of certain of their organizational objectives. Let us first examine the instructional objective—their basic obligation to students.

I have already maintained that departments give too little attention to the planning and organizational aspects of the instructional program. But what about the teaching of courses that are offered. I am acutely aware that the measurement of effective teaching is a difficult task and that the large body of research on this topic does not shed much light on it. But I think it is a reasonable hypothesis that the impact of teaching on students is in large part a function of the amount of planning and preparation the teacher engages in prior to his entry into the classroom. And careful planning and preparation takes time—lots of it. But time is the professor's most precious commodity. The development of a research design, experiments in the laboratory or field studies in the community, writing up research or scholarly work for publication, keeping up with the flood of literature that is characteristic of nearly all the disciplines, advising undergraduate and graduate students, carrying out consulting and advising activities, serving on department, divisional or university committees, carrying out responsibilities to professional organizations and spending an occasional hour with one's family—all these take time, too.

Caught in this nexus of multiple expectations and demands something

must give. The pattern of response to these incompatible expectations are undoubtedly diverse, but my own observations lead me to suspect that the modal pattern for senior professors is to give minimum effort and time to their teaching responsibilities and greater attention to their research obligations and outside activities such as consulting. It is not difficult to see why this should be the case. The reward and prestige systems of the university are geared not to effective teaching, but to outstanding scholarship and research. The reward system of the discipline or profession with which the academic is identified does not give a hang for the performance of a man as a teacher but emphasizes his contribution to the discipline or his service to the professional associations. And consulting is flattering to the ego and the pocket-book. To have one's wares desired by those who deal with practical and policy matters, to have the opportunity to apply one's ideas or techniques to the real world in addition to talking about them in the classroom, and to obtain fees as one's ego is flattered, are temptations too difficult to deny to most economically deprived academic men, especially when the service concept to the outside world has become legitimized in the universities.

Although my evidence is scanty, I strongly suspect that the quality of teaching that takes place in most high school classes in the United States is superior to that of the teaching going on in most upper division and graduate courses in the major American universities. But what about the freshman and sophomore courses? These are usually taught by the junior members of the department, who usually are not visible enough to attract consulting or advisory assignments. But it does not take them long to learn the basic rule of the game of social mobility in the academic world—that promotions and outside offers are primarily dependent on research productivity. And so with the junior staff, too, teaching generally becomes a chore to be completed with minimal effort so that one's major energies and time can be allocated to what really counts—publications. The upshot of this, I submit, is that teaching in the universities at all levels is generally not of high quality.

But although the reward system of the university stresses research and scholarly productivity the social arrangements of the university for *most* faculty members are not conducive to the effective accomplishment of this objective. The university generally has no resources of its own for the research function. Its budgets are basically teaching budgets and so the faculty members are forced to go outside the university—to the foundation, to industry or to the federal government primarily—for support of their research activities. And this has many interesting consequences. One is that since most foundations, industrial supporters of research and a number of government agencies have clearly developed notions of areas they are interested in, and since the university looks with favor on a man with a research contract, many aca-

demics are involved in inquiries that frequently do not represent their basic research interests. A second consequence is that although the universities proclaim that one of their major objectives is to advance knowledge they have in large part allowed external agencies to determine the problems to be investigated. A third consequence flows from the fact that *most*, although not all, contractors of university research will support only short term research. The resources are scarce to underwrite systematic and long term research programs—to give investigators the time to explore a problem area initially so they have the opportunity to ask and examine significant and researchable questions and to develop theoretical frameworks for their analyses. Not only are most universities not set up to support this type of enterprise, but some of the research which they encourage many of their faculty to undertake is frequently of dubious value to the advancement of knowledge.

Recognition of Basic Problems

To this point I have attempted to show how organizational characteristics such as the reward and prestige system of the academic world and the multiple functions included in the role of academic man result in the failure of departments and professional schools to deal with many of their basic problems and interfere with the achievement of organizational objectives.

I find little evidence that these basic organizational problems are recognized in most of the major American universities. In the few cases where there is an awareness of them by the administration I see few systematic efforts to deal with them. Nor do I find evidence of sustained attention being directed to other basic questions of university-wide significance that one might assume would be on the agenda of the meetings of those responsible for the management of the university as a total enterprise. How can the contributions of the natural and social science disciplines be maximized for the training programs of the professional schools? To what extent do present organizational arrangements tend to block rather than facilitate communication between departments, schools and faculty members that are concerned with similar or related problems? What are the common needs and problems of two or more disciplines or professional schools that can be most effectively and efficiently dealt with by a total university approach to them? To what extent are departments and schools in fact accomplishing their formally stated suborganizational objectives? How can the blocked lines of communication between the administration and the faculty characteristic of many universities be opened?

It is the fact that these basic problems of academic administration are so infrequently recognized or dealt with in the universities that constitutes a

third major deficiency in their functioning. Why is there so little attention given to problems of coordination, control and appraisal in the universities? I submit that as presently constituted the university typically lacks the administrative machinery or the will to isolate or deal with these problems. Nowhere in the administrative structure of most universities, at the president's level, dean's level, or departmental level, do we find individuals whose energies are primarily devoted to the systematic examination and appraisal of academic affairs. The departmental chairman is expected to teach, engage in research or scholarly work as well as deal with the administrative chores of his department with the result that the appraisal function becomes a tertiary activity, if it is engaged in at all. The deans of the professional schools and the undergraduate colleges do have assistant administrative officers to help them carry out their manifold responsibilities. An analysis of the staff functions of these assistants reveals, however, that they usually are concerned with fiscal and admissions problems and a host of administrative chores and seldom are concerned with basic academic issues. Deans usually have no staff assistants who devote their time to examining the unique and common problems of departments under their general supervision or to doing the creative thinking that might lead to their resolution. With no assistants to perform the spade work and preliminary analysis required to define and clarify important academic issues for them, and overburdened with their other administrative chores, deans not surprisingly devote little attention to problems of coordination, control, and appraisal.

The same conditions essentially exist at the top management level of the universities. Although the bureaucratic apparatus tied to the president's office for managing the financial, public relations, and physical plant problems of the university has expanded enormously in recent years, the staff available to the president to aid him in isolating and deliberating about academic problems of university-wide significance is pitiful indeed and occasionally non-existent. And in those universities with provosts or vice presidents for academic affairs, the activities of these men typically have little relevance to the analysis of the fundamental academic problems of the university. The president's attention, time and energies, therefore, tend to be allocated to the business and public relations aspects of university affairs and the academic issues that require a total institutional perspective for their isolation and resolution tend to be held in a perpetual state of abeyance.

If this analysis is at all reasonable, then a further question needs to be raised. If a basic factor accounting for the lack of concern for important problems of academic administration is the inadequacy of the administrative apparatus of the university, then what accounts for the underdevelopment of its administrative structure devoted to academic affairs?

I would suggest that the answer to this question lies in the gradual delegation from the role of university administrators of their responsibilities for the conduct of academic activities. The faculty has largely won the battle in most institutions to exclude the administration from interfering with the conduct of academic affairs. But as I have stressed earlier, the primary concerns of faculty members tend to be focussed predominantly on their own individualized and specialized activities rather than on departmental problems and problems of university-wide significance. The net result of these developments has been the neglect of many crucial organizational problems and a no man's land of decision making in the universities. Might I suggest that the responsibilities of organizational leadership, the welfare of students, and the welfare of academic man demand a critical reassessment of this unproductive state of affairs that appears to characterize the role relationships that have developed between university administrators and their faculties.

CONCLUSION

I have no neat magic formula to offer that will easily and quickly dispel the dysfunctional aspects of university functioning that are suggested by my analysis. But if, as I have maintained, certain of the stresses and strains to which many large state and private universities and their personnel appear to be exposed can be attributed to incompatible elements in, or dysfunctional consequences of, their present organizational arrangements to meet their multiple functions, then one basic approach to their resolution requires a sociological perspective in dealing with them. Such a perspective will result in a critical reassessment of university goals. It will necessitate reexamination of the rationality of the reward system, division of labor, and role definitions that have emerged in the universities for the accomplishment of their multiple objectives and for dealing with their basic organizational problems. It will also suggest the type of innovations that may be required to develop a set of organizational arrangements, roles, and career lines that will be required to maximize university resources if they are to carry out in a responsible manner the increasing and more complex instructional, research, and service tasks they have assumed.¹⁵

This speculative effort to show the potential utility of a sociological orientation to major problems of large modern universities has ignored the diversity in detailed organizational arrangements and conditions to be found in the higher institutions of learning. Clearly, the sweeping and broad gauge type of analysis presented in this paper is no substitute for systematic and rigorous inquiries into the sources of organizational strain located in the social structures of particular universities. My purpose has been to suggest that the

question of *organizational lag* may need to be given priority consideration in deliberations about, and the careful study of, basic problems of American universities.

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 11. See the report of the Committee on the University and World Affairs, *The University and World Affairs, 1960*, prepared at the request of the Department of State and supported by the Ford Foundation.
 12. Cowley, *op. cit.*, p. 505.
 13. As quoted by Cowley, *op. cit.*, p. 504.
 14. For a detailed treatment of problems of the graduate schools, see Berelson, *op. cit.*; also see Nichols, Roy F., "The Ambiguous Position of the Graduate-School Dean," *Journal of Higher Education*, 30, 1959, 123-127.
 15. For some provocative suggestions regarding needed changes in organizational arrangements see Litchfield, Edward H., "Organization in Large American Universities: The Administration," *Journal of Higher Education*, 30, 1959, 489-504; and Litchfield, Edward H., "Organization in Large American Universities: The Faculties," *Journal of Higher Education*, 30, 1959, 353-364. Also see Algo D. Henderson, *Policies and Practices in Higher Education* (New York: Harper & Bros., 1960), and John J. Corson, *The Governance of Universities* (New York: McGraw-Hill, 1960).

This article represents a bold attempt to apply the psychology of learning and the techniques of multivariate statistical analysis to the problems of teacher evaluation.

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Teacher Evaluation: Some Problems and a Proposal

THE PROBLEM OF CRITERIA

Summaries are available of conventional research into the evaluation and prediction of teaching proficiency using predictor and various sorts of criterion variables (Sandiford, Cameron, Conway and Long, 1937; Barr, 1945, 1948, 1952, 1953, 1955, 1958, 1961; Domas and Tiedeman, 1950; Watters, 1954; Castetter, Standlee and Fattu, 1954; Morsh and Wilder, 1954; Tomlinson, 1955a, 1955b; Evans, 1959; and Howsam, 1960). This type of research has reached a dead-end (Turner and Fattu, 1960, Preface) because negligible relationships exist within and among the various criteria of teaching proficiency, the ultimate criterion of pupil growth along desired dimensions, the immediate criterion of practice teaching marks, and the intermediate criterion of principal's or superintendent's ratings (Thorndike, 1959, pp. 121-124). Barr (1961) provides a cogent summary.

There is plenty of evidence to indicate that different practitioners observing the same teacher teach, or studying data about her, may arrive at very different evaluations of her; this observation is equally true of the evaluation experts; starting with different approaches, and using different data-gathering devices, they, too, arrive at very different evaluations (pp. 150-151).

And Barr (1953) has drawn the following conclusion, exact but melancholy for all involved in professional teacher-education.

The simple fact of the matter is that, after 40 years of research on teacher effectiveness during which a vast number of studies have been carried out, one can point to few outcomes that a superintendent of schools can safely employ in hiring a teacher or granting him tenure, that an agency can employ in certifying teachers or that a teacher education faculty can employ in planning or improving teacher education programs (p. 657).

Two common causes are suggested for this state of affairs. The proposed solutions are tactics or policies designed to eradicate or bypass the two causes. The first cause states that teaching is a complex business (Barr, 1945, pp. 203-204) and that any psychometric approach to the measurement of teaching success which assumes that there are common and stable factors in the teacher and his environment must meet with indifferent success. Teaching proficiency is multidimensional and there are many kinds of effectiveness for different kinds of teachers, programs and situations (Ackerman, p. 285; Mitzel and Gross, 1958, p. 206).

The corresponding solution to the problem of estimating teaching proficiency is to reduce in some way the daunting lists of "competencies" issued by Barr (1961) and Gowan (1956, p. 669). This can be done by turning to a new measure of that proficiency in terms of pupil-teacher interaction. The importance of this variable has been recognised by Barr (1952, p. 172), explicitly stated by Hughes (1959, p. 9), and demonstrated by Gage, Runkel and Chatterjee (1960). Studies by Anderson (1939; 1943), Anderson and Brewer (1945; 1946), Anderson, Brewer and Reed (1946), Thelen (1951; 1959), and Flanders (1951; 1958; 1959; 1960; 1961a; 1961b) have shown a relationship between certain sorts of teacher behavior and extent of growth by students along certain desirable intellectual and attitudinal criteria. These studies described two patterns of teacher-pupil interaction, "socially integrative behavior" which encourages the child to be spontaneous, develop his own ideas and engage in harmonious relationships with others (1943, p. 461), and "dominative behavior" in which the child is forced to behave in accordance with the teacher's standards or purposes (Anderson and Brewer, 1945, p. 9).

Generally Anderson and his colleagues found that pupils of teachers with a distinctly "integrative" pattern of contact showed significantly more spontaneity, initiative, voluntary social contributions, acts of problem-solving, and significantly fewer attributes such as conflict with others and boredom. Cogan (1956) and Flanders (1957; 1958, p. 4; 1959, p. 36) have corroborated this finding. There are at least two compelling questions which must be answered before this sort of approach can have practical value. The first is the

fact of differential student reaction to the same behavior pattern (Wispe, 1951, p. 184; Smith, 1955; and Gage, 1955). Clearly the behavioral manifestations of "integrative" teacher-pupil interaction will have to be fairly flexible. The second problem concerns the fact that any instrument for measuring teacher-pupil interaction, either that devised by Flanders (1961a) or that by Hughes (1959), has never shown any relationship to rating criteria of proficiency and therefore cannot be used at the teacher-training level.

Appreciation of this point, which invalidates much of the work of Hughes (1959, pp. 23-237), has forced certain investigators to abandon the ordinary rating criterion and to redefine the teacher as a professional person in such a way that a more accurate measure of his status as this sort of person is possible. Coladarci (1956), for example, indicts the conception of professional education as the provision of an ad hoc set of successful recipes (1956, pp. 489-490) giving specific hints as to fairly definite courses of action. Such a strategy is useless because nobody can legislate for the combination of variables emanating from the teacher, the class, and community, which defines any teaching situation (*ibid.* p. 450). The educational act is taken to comprise "an uninterrupted cycle of enquiry," beginning with educated hypotheses based on information as to what methods, materials, and professional behavior are likely to bring about the desired criterial changes. The effectiveness of these hypotheses as manifested in teaching procedures is tested and evaluated and reinforced or modified by the psychometric decisions. The teacher-training must provide the relevant factual, technical and theoretical training necessary for intelligent hypothesizing and hypothesis-evaluation.

Turner and Fattu (1960a; 1960b; 1961) apply this concept of the teacher as an hypothesis-maker to the problem of the evaluation of teaching proficiency. They contend (1960b, p. 13) that the most economical and systematic way of conceptualizing the potentially inexhaustible concept of teacher behavior is professional problem-solving. A problem arises when there is a discrepancy between the actual behavior of a pupil and the behavior that the teacher considers to be desirable for the pupil (1960a, p. 7). The teacher, therefore, has two tasks; firstly, the setting up of incentives or goals (*ibid.* pp. 7-8); secondly, the diagnosis of pupil difficulties and the choice of remedial procedures, the latter component being the more important.

Diagnostic tasks obviously involve evaluation, i.e., the assessment of pupil status, but go beyond evaluation in that the particular phase or aspect of the goal which the pupil has not achieved must be isolated, his errors en route to the goal must be examined and then a choice among remedial procedures, or additional instrumental responses by the teacher, must be made . . . the diagnostic task is the epitome of teaching (*ibid.*, p. 8).

The teacher as a problem-solver has certain professional skills which resemble those suggested by Coladarci: firstly a wide variety of facts and hypotheses applicable to variant situations (Turner and Fattu, 1960b, p. 15); sensitivity to pupil change along a wide variety of educational incentives (*ibid.*, p. 16, p. 17); the ability to search for relevant information and to weigh its value in the current problem-solving context (*ibid.* p. 18). Turner and Fattu justify their contention that their criterion measure of problem-solving ability can be organized only outside classroom activities (*ibid.* pp. 18-20) and they summarize (1961) their detailed findings with various paper-and-pencil instruments for measuring problem-solving performance in arithmetic and reading (Turner, 1960, 1961; Wade, 1961). Unfortunately these studies are concerned with the construct and not the predictive validity of the test (Turner and Fattu, 1960b, p. 26) and consequently provide little information about the practical value of the instruments.

Another practical difficulty is that the tests (Turner, 1960, pp. 11-13) are too strongly oriented towards methodology and do not take into account the production and use of the sorts of behavioral hypothesis invoked when the understanding and control of the child is involved. A final more crushing difficulty is that teaching is a matter of overt behavioral operation in the classroom setting and, unless Turner and Fattu provide evidence to the contrary, it can be plausibly contended that an individual may be sharp at working out solutions on paper and yet may be lost amid the dust and press of the classroom arena.

The second source of difficulty in teacher evaluation can be inferred from a comment by Barr (1961) on a study by Lins (1946):

Some teachers were preferred by the administrator, some were liked by the pupils, and some taught in classes where there were substantial pupil gains in terms of the tests employed to measure pupil gains, and generally speaking, these were not the same teachers (p. 17).

As Ryans (1960) has indicated, pupils, evaluators and administrators "... consider quite different attributes in conceptualizing the competent teacher" (1961, p. 3). Even Socrates, whom Ryans (*ibid.* p. 1) cites as an outstanding teacher, was regarded as a dangerous and subversive character by some.

One corresponding solution to the evaluation problem, that proposed by Leiderman, Hilton and Levin (1957) and by Ryans (1960), is to pretend that teacher proficiency can be assessed accurately in some unspecified way through the medium of teacher behavior or traits or characteristics. As Ryans (1960) puts it:

Perhaps the first step toward a better understanding of problems relating to teacher competency may be the intensive and extensive study of

teacher characteristics . . . It should not be too difficult to identify teachers who demonstrate these characteristics to a considerable degree. Certainly teachers who were found to rank high—say in the top 20 per cent —on a number of sets of teacher characteristics generally agreed to be important in a particular culture could be regarded as being effective teachers (p. 5).

This confusion of an evaluative with a statistical approach is open to attack. The most serious criticism, over and above the obvious one that static teacher characteristics can tell us nothing if situational determinants of teaching proficiency are strong (Barr, 1955, pp. 203-204), is that in any culture in which the financial return for teaching is so poor that any kind of good man is likely to be excluded, the competent dedicated few will probably exhibit fairly unusual characteristics. For example, Halpin (1961, p. 5) has recently provided some evidence of the illiteracy rampant in a sample of 223 elementary-school principals. It is unlikely that sensible men would regard this intellectual norm as a desirable.

THE EVALUATOR'S PERCEPTUAL FRAMEWORK

A second solution to the problem of personal constructs in forming assessment of teaching proficiency takes the form of an administrative decision to choose evaluators sharing a common frame of reference, an administrative strategy which finds some sanction in the finding that British studies of the prediction of teacher proficiency report significantly higher relationships among earlier and later criteria than do North American studies (Vernon, 1953, p. 53). A fair guess is that the origin of these comparative differences lies in the greater agreement exhibited by British professional educators about the goals and incentives of education, which are much more intellectual (James, 1957, p. 1434) and of the sort described by Bestor (1957).

To offset the obvious criticism that this approach may be "undemocratic" in Locke's sense of the term, the present theory attempts to solve the problem of the use of different personal constructs in evaluation by trying to isolate the sorts of individuals who will hold up the evaluative act for a long time until all aspects of the teacher's behavior have been registered, as compared with the individual who evaluates quickly and sticks to his decision. The contrast of these individuals can best be emphasized and illustrated by resorting to the concept of "inferential set" as used by Jones and deCharms (1957) and Jones and Thibaut (1958) which refers to the constraining role within which we interact with another person and evaluate his performance (Jones and Thibaut, 1958, p. 152) and which is determined by the type of social interaction involved. This concept can be described most relevantly in the

present context in terms of two polar opposite sets. The first is a causal-genetic set in which the perceiver is interested in making a study of the other person's behavior in terms of underlying conditions and determinants. The second "set" is an evaluative one, involving the application of social sanctions to the interpretation of another person's behavior, its appropriateness or correctness being perceived in terms of the norms regarded as relevant to the situation. When this last "set" is invoked, the rater is evaluating the other from a position of authority (Jones and Thibaut, p. 167). As Jones and Thibaut remark, "The perception of the other person is informed by evaluative sanctions" (*ibid.* p. 168). They (*ibid.* pp. 173-174) report that, when these "sets" are differentially aroused, the causal-genetic provokes "sensitivity hypotheses" about the behavior of others, the second "set," "evaluative hypotheses." It is a reasonable speculation that, if "evaluative sets" are not invoked early on, the individual's personal constructs may not inform quite so strongly his assessments. This concentration of attention on the evaluator rather than on the teaching behavior might borrow its "unifying conceptions" (Mitzel, 1960) from the generous amount of consensus found in studies of "social perception."

As Bruner (1958, p. 85) has recognized, organisms have a limited span of attention and immediate memory, and perception has to be selective because the "cognitive strain" of registering simultaneously every multifarious aspect of stimulus input would be considerable. Only behavioral attributes that are necessary or relevant for an organism's enterprises are attended to (Bruner, 1958, p. 86). Even this selective interpersonal input is ambiguous with respect to a person's covert characteristics (Bruner, 1957a, p. 143; Tagiuri and Petrullo, 1958, p. 305), and the consequent uncertainty induced in the perceiver (Berlyne, 1960, pp. 178-179) must be reduced by a search for cues on the basis of which a conceptual framework can be formulated for understanding the behavior in the light of "inferential sets" (Jones and deCharms, 1957; Jones and Thibaut, 1958) which dictate the incentives of the perceptual act. Often the input is distorted by being squeezed into an already existing framework, an event accomplished largely because invalidating the categorizing of interpersonal cues is a notoriously difficult matter (Bruner, 1957a, p. 142).

One way of facilitating the organization of this social perception is to recode the diversity of relevant events and experiences (Bruner, 1958, p. 86) into a simpler form by inferring "personal dispositions" or syndromes or traits as stable characteristics of other people (Heider, 1958a, p. 30, p. 53; Rommetveit, 1961, p. 27). There is a further "cognitive economy" (*ibid.* pp. 52-53) stemming from this dispositional model: on the basis of our perception of the probability texture of the inter-trait environment, we can go beyond the

information given and read off traits likely to be associated with the original trait but not present with it (Bruner, Shapiro, and Tagiuri, 1958, p. 278). For example Bruner, Shapiro, and Tagiuri found that the majority of their subject linked "intelligent" and "imaginative," "clever," "active," "conscientious," "deliberate," "independent," "reliable" and so on, conditioned inferences which are not synonyms of the stimulus word (*ibid.* p. 283). Heider's (1958b) summary of this is enlightening.

... Schemata . . . of intention, or sentiment, or of a constant person make possible a simple and unified representation of an otherwise very involved and confused sequence of events. Attribution serves the attainment of a stable and consistent environment, gives a parsimonious and at the same time often an adequate description of what happens, and determines what we expect will occur and what we should do about it (p. 25).

This set of dispositional constellations or conceptual framework for understanding interpersonal input has two important characteristics. In the first place, as Harvey, Hunt and Schroder (1961) suggest, "the organized totality of one's concepts" constitutes the self-concept, so that the professional constructs we use for evaluating teacher performance are closely similar to our belief system and to the "personal constructs" which, for Kelly (1955), mediate the perception and anticipation of behavior, particularly that of others. Hebb (1960) likewise concludes from some observations and findings that "... the mental processes of self-perception are the same processes, in large part, that constitute the perception of another person" (1960, p. 742). The second characteristic is that this conceptual framework has primarily an evaluative function.

We also want to attain stable and orderly evaluations; we want to find the good and the bad distributed in a simple and consistent fashion. The codification in terms of positive and negative values is simpler when the positive features are grouped in one unit and the negative ones in another unit. For instance, there is a tendency to see only the positive traits in a person we like. We find again and again that the sentiments and perceptions arrange themselves in such a way that simple harmonious configurations result (Heider, 1958b, p. 25).

ANXIETY AND EVALUATION

It is highly probable that the evaluative function of the conceptual framework is determined by the fact that this framework exists to ward off the anxiety associated with conceptual incongruity, cognitive dissonance, uncertainty, unfamiliarity and the like. Gombrich (1960), for example, contends that evaluative reactions

... testify to the constant scrutiny with which we scan our environment with the one vital question: are you friendly or hostile, a "good thing" or a "bad thing"? (p. 232).

The deeply evaluative nature of the conceptual framework can be derived most clearly from Berlyne's (1960) motivational model which begins with the functionalist assumption that perceptual and intellectual processes are biologically advantageous in that they are either immediate or delayed ways of reducing a quantity of "supra-normal arousal" (Berlyne, *ibid.* p. 182, 189, 206), which Anderson (1962) has equated with anxiety. Berlyne demonstrates that certain stimulus variables—novelty (*ibid.* p. 21), "surprisingness" (*ibid.* pp. 23-24), incongruity (*ibid.* pp. 24-25), ambiguity and uncertainty (*ibid.* pp. 28-29), and complexity (*ibid.* p. 24)—activate the orienting reflex or vigilance (*ibid.* pp. 83-86) and thereby induce a degree of arousal which must be forced back to a steady state (*ibid.* p. 200) by cortical activity (*ibid.* p. 181), although the nature of this interaction between cortex and arousal system still has to be settled.¹ All reinforcement is primary and takes the form of arousal-reduction and a paradigm of the motivational state then takes the form: cue —> arousal (anxiety) —> behavior —> incentive —> arousal-reduction. Some sort of cause-and-effect relationship has been established between a cue (parents' or teacher's threats) and the quantity of arousal which constitutes anxiety and the organism then behaves to dissipate this anxious state by reaching an incentive with this property (high marks in school). We may fairly imagine, then, that our conceptual framework has this payoff value, that it prevents a rise in arousal which is the product of conceptual incongruity or dissonance or uncertainty or novelty and the rest, and the character of its functioning to this end is related to the extent to which the individual is willing to tolerate arousal levels.

Other authors testifying to this currently important link between anxiety, evaluations and the conceptual framework are Osgood (1957), Bruner (1957a) and Rokeach (1960). Osgood asserts that his r_m component of connotational meaning, which is largely of an evaluative sort, is bound up with the activation of the arousal system by the sign of a significate (1957, p. 372, p. 390, p. 393). Bruner points to the fact that one of the functions of perceptual readiness is to "minimize the surprise value of the environment" (1957a, p. 133), and most of Rokeach's (1960, *passim*, especially, p. 67) findings about belief systems generally, particularly those characteristic of the "closed" vs. "open" mind, are explicable on the assumption that these systems are a defence against anxiety.

¹ Berlyne sees the cortex as primarily arousal-reducing; Hebb (1955; 1958) and Lindsley (1957, pp. 68-69; 1961, p. 183) see it as arousal-inducing.

The significance of all this for the evaluative process involved in the estimation of teaching proficiency is contained in the following hypothesis: that the more anxious an individual is, or the more he is susceptible to anxiety, the more quickly this evaluative process will take place (Bruner, 1957a, p. 145, p. 147), and there will be two sorts of misperception. In the first place, interpersonal input will be interpreted in terms of its private threat to the individual's frame of reference and not in terms of its objective properties relevant, in the case of teacher evaluation, to successful criterial performance (Rogers, 1959, p. 237; Rokeach 1960, p. 63, p. 67). In the second place, the perception of one attribute will bring quickly and strongly in its wake expectations of associated attributes. In Rommetveit's (1961) terminology:

In a judgmental setting, in which the individual is attempting a deliberate sorting of other persons with respect to a single attribute X, stimulus events indicating information about an additional irrelevant attribute Y will influence his judgment in such a way that . . . (b) the higher the instrumental relevance of Y relative to that of X in his previous environment, the stronger will be his selective orientation toward the irrelevant attribute Y (pp. 28-29).

Correspondingly, whatever is judged to be valuable, in the case of the anxious evaluator, will be what promotes immediate or delayed anxiety-reduction, whatever does not threaten his or her frame of reference. To the spinster, for example, a tall gawky lass who is driving a class either into apathy or distraction by the hesitant dullness of her performance, will be marked up for earnestness and good moral intentions. To the anti-intellectual on the other hand, an intellectually polished teaching performance will be reduced in value by quibbling, denial and distortion. The contribution of this factor to inter-rater inconsistency will be cancelled somewhat by the homogeneity of the conceptual framework of professional educators.

When this hypothesis concerning the relationship between anxiety and misperception is applied to the individual evaluator, it takes the following form: that the character of the functioning of the conceptual framework is related to the extent to which the individual is willing to tolerate supranormal arousal over a period of time or to tolerate the anxiety associated with ambiguity, incongruity, and uncertainty, a dimension to which Frenkel-Brunswik (1949) and Berlyne (1960, pp. 214-216) have paid some attention. Consider, for example, the relatively anxious individual who is driven to confer immediate meaning on his interpersonal input, who makes an early estimate of the teacher's performance and spends the remainder of the time "gating" (Adrian, 1954), distorting or denying contradictory or even neutral but relevant information in order to preserve the original conception. At the opposite pole is the individual able and willing to control the anxiety associ-

ated with temporary uncertainty and who is ready and "motivationally open" (Wallach, 1959, p. 170) to assimilate the information which does not fit the tentative hypothesis. The latter sort of individual, with a highly articulated or differentiated perceptual field, is described in perceptual terms by Barron (1956-1957).

. . . A disposition towards integration of diverse stimuli; an openness to a variety of stimuli combined with a need to organise them into some coherent pattern. A resistance to premature closure and a persistent effort to achieve closure in an elegant fashion. In brief, everything that can be perceived must be taken cognisance of before a configuration is recognized as a possible final one (p. 737).

This is clearly Rokeach's (1960) dimension of the open-closed mind:

. . . All belief-disbelief systems serve two powerful and conflicting sets of motives at the same time. To the extent that the cognitive need to know is predominant and the need to ward off threat absent, open systems should result. In the service of the cognitive need to know, external pressures and irrational internal drives will often be pushed aside, so that information received from outside will be discriminated, assessed and acted on according to the objective requirements of the situation. But as the need to ward off threat becomes stronger, the cognitive need to know should become weaker, resulting in more closed belief systems (pp. 67-68).

E. Lakin Phillipps (1957) has provided compelling clinical illustrations of his hypothesis that disconfirmation of a conceptual framework induces neurotic anxiety.

That this dimension of individual differences in arousal-tolerance is of some psychological significance can be established by detecting it and its correlates at various levels in the behavioral hierarchy. In terms of perceptual processes, for example, its immediate correlate is Bruner's "perceptual recklessness" or the placing of input in highly accessible categories or behavioral hypotheses which interfere with correct perception (1957a, p. 145). And Bruner contends, as we might have predicted from the model, that these monopolistic constructs are used when individuals are operating under conditions of stress or are particularly susceptible to arousal potential (Berlyne, 1960, p. 179) or anxiety-provoking stimuli (Bruner, 1958, p. 90).

This variable of a fast as against an unhurried perception is related closely to the "cognitive attitude" of "leveling-sharpening" described by Klein (1958) and the subject of research by Gardner et al. (1959), Gardner, Jackson and Messick (1960), and Gardner (1961). "Sharpening" is described as "maximal complexity and differentiation of the cognitive field" (1959, p. 22) and is a

function of the extent to which successive and new stimuli are assimilated to each other and to some conscious and unconscious "apperception mass" and is clearly a function of the amount of repression of affect (Holzman and Gardner, 1959; Gardner, 1961, p. 26) and therefore of the resistance to the necessity for fast perceptual solutions. In terms of perceptual outcomes, an identical variable is Witkin's (1954) field-dependence—*independence*, the passive or field-dependent perceptual performance being so slavishly dependent on the probability texture of the environment that it is unable and probably unwilling to recognize incongruous stimuli (Bruner and Postman, 1949; Bruner, 1958, pp. 90-91). This is Gardner et al.'s (1959, p. 474) reinterpretation of the field-dependent—*independent* dimension in perceptual process terms. As the latter authors report, it involves a resistance to dealing with new experiences (*ibid.* pp. 475-476) and we may imagine that this will be particularly true of experiences that run counter to the original way the individual is "cognitively tuned to interpersonal input" (Bruner, *ibid.*, p. 86).

In more formally conceptual terms, the correlates of individual differences in arousal-tolerance can be seen in the dimensions of the conceptual framework proposed by Harvey, Hunt and Schroder (1961, pp. 75-76). For example, clarity-ambiguity, "The greater the articulateness of a concept, the greater is its clarity" (*ibid.* p. 75), is clearly "levelling-sharpening," and its contended negative correlation with the second dimension of "compartmentalization" or the degree of tightness or integration of the components of the framework (*ibid.* p. 95) suggests that the latter may be related to "perceptual recklessness." The fourth dimension, "openness-closedness" (*ibid.* p. 76), refers in present terminology to the degree to which the individual can so tolerate arousal that he is willing to entertain and assimilate incongruous behavioral information which may involve the refutation of the original conception (*ibid.* pp. 55-56). The third dimension "centrality-peripherality," has not been noted previously, but is very relevant to the present discussion. Clearly some concepts or values (*ibid.* pp. 2-3) are more central to an individual than others. We may term them the primary virtues envisaged as characterizing future behavior and we may use contrasting examples such as "responsibility" and "capacity for work" (perhaps chosen by administrators) as against "power to motivate the classes to see learning as a desirable incentive provoking 'arousal jags'" (Berlyne, 1960, p. 198) (perhaps chosen by psychologists). This is a variable not to be lost sight of when a statement of hypotheses has to be made.

Perhaps the most immediately relevant conceptual variable is Bieri's (1955; 1961) cognitive complexity-simplicity which takes in the first, second and fourth of Harvey, Hunt and Schroder's dimension. Bieri postulates complexity-simplicity as a characteristic dimension of the conceptual framework,

the cognitively complex individual showing a greater degree of differentiation among the constructs and a greater number with which to construe the behavior of others, while the cognitively simple individual with fewer constructs and an incomplete differentiation of the boundaries between the self and the external world can make only unwarranted assumptions of similarity between self and others (1955, p. 207; 1961, p. 355). Some of Bieri's correlates of this dimension have implications for teacher evaluation; that a significant relationship exists between the complexity-simplicity dimension and accuracy of perception of others (1955, p. 2560) and a significant negative relationship between degree of cognitive complexity and the tendency to engage in "assimilative projection" and emphasize similarities in behavior between oneself and others (1961, p. 362). These relationships may best be explained in terms of a drive for cognitive certainty or rather a determination to avoid the anxiety associated with the uncertainty, an hypothesis which would explain the third finding, that cognitively complex individuals make more accurate probability estimates concerning the unknown frequency of occurrence of events, and they have less confidence in their judgments, or rather less need to have confidence in their judgments (*ibid.* pp. 367-368; cf. Kogan and Wallach, 1960).

From all this it is fairly obvious that the personality correlate of arousal tolerance is authoritarianism (Frenkel-Brunswik, 1949). Rokeach (1960, pp. 347-385) has provided incontestable evidence of a significant relationship between dogmatism and anxiety and some recent findings concerning the perceptual and conceptual distortion of the authoritarian have relevance for teacher evaluation. Rokeach and Hunt and Schroder (1958) have demonstrated that subjects high in anxiety show significantly greater resistance to the acceptance and assimilation of contradictory or negative information into their conceptual framework than do subjects low in anxiety; Harvey and Beverly (1959) have shown that authoritarian individuals fail to receive negative information to which they have been exposed, and Harvey and Caldwell (1959) found that authoritarians who are characteristically anxious resist changing their construct if no significant person or source exerts pressure on them. In other words, the authoritarian as an evaluator can be described as a simple non-articulated leveler. Jones (1954-55, p. 126) and Scodel and Mussen (1953) found authoritarians significantly more insensitive than non-authoritarians to the personality characteristics of others, using simple power-related categories to understand the behavior of another person, although they are insensitive to individual differences in the extent of this power. Adorno et al. (1950) found non-authoritarians are significantly more likely to see a heterogeneous mixture of good and bad traits within any one person and Steiner (1954) discovered that if two traits are equal in social

desirability, authoritarians will assume that they have a high probability of occurring together; if they are unequal, that they are unlikely to occur together (cf. Rommetveit, 1961, pp. 28-29). Gowan (1955) makes the following inference from such findings as the surprisingly high correlation between the field rating by an administrator of 29 teachers and their socio-economic status:

When an authority figure rates a group of subordinates on a certain variable his rating will be more highly correlated with the patterns of identification established by his value system than with the actual variable itself (p. 151).²

Are teachers and teacher-evaluators or ex-teachers significantly more authoritarian and/or anxiety-ridden than the generality? Separate pieces of evidence indicate that this is likely. Von Fange (1962), using the Myers-Briggs inventory, has recently provided evidence that there is a disproportionately large number of judgmental as against perceptual people at all levels in teaching (*ibid.*, Table XVII, p. 93). The description by Myers-Briggs of their dichotomy resembles that of dogmatism already adumbrated, especially in the attributes of perceptual and conceptual openness-closedness to input. P is described as "becoming aware of something" and J as "coming to a conclusion about something" (*ibid.* p. 58). That these conclusions may be hurried is clear from certain phrases in the Myers-Briggs account of the employment aspects of "judging types: may decide things too quickly . . . may not notice new things which need to be done" (*ibid.* p. 200). This is in contrast to the non-dogmatic flexibility of the perceptual types: "Like to adapt to changing situation; like to leave things free for alterations" (*ibid.* p. 200). Two other findings add weight to the conception of the dogmatic/judgmental quality of teachers: the first is that there is a disproportionate number of "perceptual" students in Arts and Science and Graduate Studies (*ibid.* pp. 93-95) and among creative people (Mackinnon, 1962). Mackinnon's (1962) description of the unrepressed creative person resembles Barron's of the "open" person.

Everyone perceives and judges, but the creative person tends to prefer perceiving to judging. Where a judging person emphasises the control and regulation of experience, the perceptive creative person is inclined to be more interested and curious, more open and receptive seeking to experience life to the full. Indeed, the more perceptive a person is, the more creative he tends to be (p. 17).

²This runs counter to Andrews and Brown's (1959) finding of a lack of relationship between effectiveness rating and teacher-principal similarities in values, manifest needs and educational attitudes. This finding, however, may be ignored because of the crudity of the measuring instruments involved and the absence of any psychological references.

This bears a striking resemblance to Holbrook's (1962) contention that educational administrators are repressive and uncreatively anti-educational in their attitude to

. . . intuition—the whole inaccessible area of our make-up, beyond the grasp of consciousness and will where our fantasy plays . . . Education only begins to civilize when it touches on those areas of being. Without dealing with this darkness of the intuitive faculty, education becomes sterile and actually less effective. But to the administrator this raw life process of the classroom and the cognisance of it in free imaginative work, seem indecent. And so we have the powerful pressure in education to maintain a respectable facade, to keep to textbooks, to suppress experiment, to maintain conservative routines and to restrain expression (p. 201).

Guba, Jackson, and Bidwell (1959) report two findings about teacher behavior which they regard as intractable, but which are amenable to plausible interpretation in terms of the present hypothesis. The first is that the typical teacher "need structure," based on the motivational concepts of Murray and Edwards, is high deference, low dominance, high endurance, high order (1959, p. 10); the second is that, the more nearly the teachers approximate to this pattern, the less likely they are to feel "satisfied, effective and confident in the ability of their administrative officials, but the more likely is the administration to regard them as effective" (*ibid.* p. 11). This can be explained most satisfactorily in terms of Sanford's (1956) pattern of authoritarian submission and authoritarian aggression (1956, pp. 26-27) active in conditions of moderate administrative competence (cf. Harvey, Hunt and Schroder, 1961, pp. 175-177).

EXPERIMENTAL TESTS OF THE MODEL

Two sorts of experimental approaches can be adopted. Firstly, the model can be validated directly by determining whether the evaluative process conforms to it, particularly in the matter of the extent of defensive reactions to incongruous input. Secondly, the model can be validated indirectly by testing predictions from it concerning the homogeneity of assessments of the same teacher or groups of teachers by different individuals. For example, in the case of the second approach, a first hypothesis might be that non-dogmatic individuals will show greater homogeneity of inter-rater evaluations than dogmatic individuals provided two variables are controlled: firstly, the content of inter-rater constructs and expectancies, and, secondly, from a more structural viewpoint, Harvey, Hunt, and Schroder's (1961, pp. 75-76) centrality peripherality dimension of the conceptual framework. Formally the model suffers from one weakness; the fact that a complete picture of all the

perceived attributes of the individual by different evaluators does not necessarily mean that the differential weighting of attributes will be similar. It is a fair supposition that perceived attributes favorably "tuned" to the evaluator's central concept will be weighted most.

Current developments in psychometric techniques have provided new methodological procedures which promise to permit a new attack upon the problem of understanding the dynamics of the evaluator. Procedures suggested for studying the model may in general follow two approaches. The first approach would permit an investigation of the nature of the evaluator's dimensions, and their relationship to personality variables and to utilization of incongruous information. The second approach would study the effects of incongruous input upon that data which it follows and precedes.

Tucker's (1960) use of the Eckart and Young (1936) procedure for approximating a given matrix by another of lower rank (canonical resolution) holds promise for investigating the problem of defining a perceiver's "perceptual space." Thus given a design in which a single rater is presented with a large variety of stimuli to rate (such as teachers in the classroom) along a number of scales considered as representative of a hypothetical universe of criteria, the observed rating matrix for a given rater could be approximated in a least squares sense by a second rating matrix based upon fewer but hypothetical dimensions of behaviour. If a single rater were asked to rate thirty teachers on twenty scales the resulting scores in the 30×20 rating matrix might be then reproducible to a very high degree by a second rating matrix based upon fewer than twenty scales or dimensions. This procedure is very similar to standard factor analytic procedures except that rather than reproducing the observed correlation matrix a reproduction of the actual scores as given by the rater is sought. The number of dimensions required for an adequate approximation can be made by selecting the largest latent roots and vectors associated with the empirical rating matrix. This problem is analogous to that of determining when to stop factoring in factor analysis. If a given number of dimensions can be considered as an indication of the complexity of the evaluator's perceptual space (since they are capable of reproducing the observed ratings to some high degree, and that part not reproduced could be attributed to error), then it is conceivable that this variable expressing the dimensionality of the space is related not only to measures of authoritarianism and dogmatism, but also to the evaluator's ability to accept incongruous information. The implicit weight given to the various dimensions by the evaluator could be considered as a function of the size of the associated latent roots. The latter approach is analogous to the procedure in factor analysis of finding the sums of squares of the factor loadings for a given factor. The factor with the largest sums of squares is then taken to be

most important in its contribution to explaining the obtained results. Since the mathematical solutions for the dimensions defining the rater's perceptual space and thus the distribution of the stimuli due to these dimensions is not unique, transformations (rotations) may be necessary for the sake of meaningfulness.

If one wishes to study the behaviour of the evaluator through his distribution of stimuli along dimensions of his perceptual space, the latter analysis coupled with Cronbach's (1958) suggestions for analysing such distributions might prove extremely profitable.

The method based upon a canonical resolution of the observed rating matrix for a single rater permits the approximation of any specific rating in the matrix by the sum of a number of independent components each due to a specific dimension of the rater. The homogeneity of the judges' ratings, based upon these components making up a global rating of teacher efficiency attributable to any common dimension used while rating the same stimuli, can be made. The assumption here being that those components due to dimensions in each judge's perceptual space which contribute little to reproducing the observed rating are attributable to error. Thus in selecting only the common and most important dimensions the proportion of error variance permitted to enter the global index might well be reduced. Such analysis would necessitate the resolution of each rating matrix produced by each judge. This is not an easy task even for a fast computer if the number of raters or stimuli are large. Furthermore, given the situation where an ultimate criterion is specified, global ratings could then be based only upon the components due to the dimensions in agreement with dimensions of such a criterion.

The above analysis, in a sense, only permits investigation of the gross anatomy of the rater's perceptual space. A finer analysis might well follow the experimental designs of Kaye (1958), and Abelson and Rosenberg (1958). The former method could provide a solution to the phenomenon of inferring the existence of traits in a ratee when the existence of another trait has already been accepted by the rater. Once this pattern of inferences has been determined for a given subject, sequentially controlled input incorporating incongruous information (information contradicting the existence of an inferred trait of the ratee) could be presented to the rater and the change in some rating index of the stimuli could be studied. Measures of anxiety contiguous with the input of incongruous information could be investigated at the same time. The analysis developed by Abelson and Rosenberg permits the construction of a structure matrix containing the subject's expression of a positive, negative, or null relationships between sets of cognitive elements defined as "actors," "means," and "ends." A symbolic psycho-logic system per-

mits the investigator to reduce the subject's structure matrix to a form showing the number of inconsistencies expressed, and what relationships among the elements that the subject must change in order to bring about a logical or "balanced" matrix. A contribution to the study of measures of teacher competency can be made by studying the number and location of a rater's inconsistencies. The rater could be asked to complete a set of "open-minded" sentences, that is, be asked to express a relationship between, say, the teacher and some relevant classroom behaviours. To complete the structure matrix statements expressing the relationship between the teacher and all behaviors listed, in addition to statements relating all behaviors must be made. It might be hypothesized that the more dogmatic observer will have a structure matrix fraught with inconsistencies. The number of inconsistencies may well reflect the rater's inability to accept incongruous input, particularly if he is unwilling to "think" about and modify his structure matrix to incorporate such information.

The experimental designs and procedures suggested above do not, of course, consider all the sources of variation which might enter into predictor-criterion relationships. No attempt has been made to isolate the variations due to sampling of the behavior observed, the degree to which some *a priori* criterion is similar to an evaluator's criterion, nor the unreliability of the criterion measure. It does, however, provide a method for investigating one large source of variation due to the evaluators themselves.

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*Do teaching machines teach Socratically?
The author raises this question and arrives
at a negative conclusion.*

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Socratic Teaching?

It is not difficult nowadays to run into a claim that such and such teaching method follows the principles implicit in the method of Socrates. Perhaps the most recent group addicted to making such claims are the advocates of teaching machines or programmed instruction.¹ Over and over one hears the claim that teaching machines simply make precise and effective the age old principles underlying Socratic method. If one is willing to blur enough distinctions, perhaps he can swallow such a claim, but to a philosopher with some respect for the forefather of all Western philosophers, it seems nothing short of real sacrilege for the name of Socrates to be used in such cavalier fashion. In any case, perhaps it will be helpful to take a quick look at one example of Socrates at work in order to contrast it with an example of programmed instruction. If one accepts a claim that such and such teaching method uses the principles of Socrates, it is only sensible that he know what these principles are.

Let us note in the first place that Socrates does not fill the predominant role that we usually assign to a teacher. He does not claim to be imparting knowledge to others; he claims to be an inquirer after truth, at best a mid-

¹ *The Carnegie Corporation of New York Quarterly*, October, 1961, Vol. IX, No. 4, furnishes an excellent example of one of the more moderate claims. It points out the effectiveness of Socratic Method as Socrates uses it in *The Meno*, indicates that every great teacher since Socrates has used the insights that underlay Socrates' method, then more or less straightforwardly (there is an impressive figure of Socrates printed on the front page) points

wife to the ideas of others. He makes no claim to wisdom; he seeks only to expose fraudulent claims to wisdom or to learn from those who are wise. When he finds someone who is wise, he tries to learn what the other knows; but according to his own testimony, those who are wise are extremely difficult to discover. In his words,

I am called wise, for my hearers always imagine that I myself possess the wisdom which I find wanting in others: but the truth is . . . that God only is wise; and by his answer he intends to show that the wisdom of men is worth little or nothing; he is not speaking of Socrates, he is only using my name by way of illustration, as if he said, He, O men, is the wisest, who, like Socrates, knows that his wisdom is in truth nothing. And so I go about the world obedient to the god, and search and make enquiry into the wisdom of any one, whether citizen or stranger, who appears to be wise; and if he is not wise, then in vindication of the oracle I show him that he is not wise. . . .²

A person who is a teacher can, of course, function in the role of student. But the role of teacher, the role of student, and the role of inquirer are distinguishable. The following rough distinction will suffice. A teacher is primarily concerned to help others come to know. A student is primarily concerned to learn what others know. An inquirer is primarily concerned to learn what no one knows.

It would seem appropriate for a person consciously functioning in the role of student or inquirer to use the Socratic method. Ordinarily this person would not be one primarily concerned to bring others to know. Of course, in an educational system one may be nominally the teacher in the sense that he is designated "teacher," whereas in reality he is simply a co-inquirer with others, who may be designated anything from "student" to "dean." One may easily envision a level of education where there are no teachers, only inquirers of different levels of sophistication, skill, and experience. But it is extremely difficult to envision teaching machines or programs that do not "know." After all, presumably a teaching machine is one that teaches, i.e., brings people to learn what is already known, not one that inquires.

out that these great insights are the foundations upon which the various forms of programmed instruction are based.

A typical claim appears in *Teaching by Machine*, by Lawrence M. Stolurow, published by U. S. Dept. of Health Education, and Welfare in 1961 as Cooperative Research Monograph No. 6. On page 60, Mr. Stolurow writes, "One can consider the communication process between the teaching machine and learner as analogous to that taking place when a student is taught with the Socratic method by a live teacher. The learner, through answering a sequence of questions, is led from one state of knowledge or skill to another."

Such claims are so common in fact that one can hardly read any introductory explanation of what automated instruction is about without running into the omnipresent Socratic Method.

² *Apology*, Jowett translation.

It is more than a casual misreading of Plato's dialogues to think that Socrates is a teacher, for to say the least he disavows the claim himself. Particularly does he disavow the claim to know and the claim to be one who imparts knowledge. Christ taught. Socrates sought truth. There is a fundamental difference in the roles each fulfilled, and there is a fundamental difference in teaching from the point of view of one who knows rather than from the point of view of one who is inquiring.

There is a celebrated passage in the *Meno* almost always cited as an example of Socrates the forerunner of teaching machines. But one might cite this passage in support of automated instruction at least with fear and trembling. Socrates directly claims only that he is helping the slave boy remember, not teaching. "Attend now to the questions which I ask him," he says to Meno, "and observe whether he learns of me or only remembers."⁸ In any case the issue in the *Meno* is whether virtue can be taught, and the bulk of the dialogue has to do with the nature of virtue and the difficulties of deciding whether it can be taught before one knows what it is. Though the dialogue with the slave may be a famous aside, it is nevertheless an aside. Even if Socrates admitted to teaching the slave, and even if there could be no question about whether the slave learned or simply remembered, there would be no justification for calling a method of teaching that resembled Socrates' handling of the slave, Socratic Method. The most the incident can represent is something Socrates once did. How can it represent his method when even in the dialogue in which it occurs it is peripheral to his central concern, used only as a demonstration, not to push the main inquiry? To think of the slave incident as typical Socratic method is much like thinking of Death Valley as typical of the United States.

In addition, Socrates' claim that he is only helping the slave remember is more impressive than it seems at first sight. What he draws out of the slave is a series of acknowledgements about the meaning and relationships of terms like "square," "double," "line," etc. In fact the demonstration enables Socrates to point out to Meno that because the boy knows the meaning of "square," etc. in a sense he already "knows" that the square of the diagonal of any square is double the size of the square. All Socrates elicits from the boy are admissions about the meanings and relations of terms. Socrates teaches him "nothing" because what the boy already "knew" entailed the truth of what he was led to admit. Surely such is not the case in ordinary teaching nor is it the case with the kind of teaching called automated.

Let us turn now to a typical example of Socrates at work. We shall use the *Euthyphro* as our example of Socratic method. In the *Euthyphro*, the sub-

⁸ *Meno*, Jowett translation.

ject of discussion is piety, and Socrates is trying to discover the nature of piety from one who claims to know, in this instance, Euthyphro. Euthyphro is currently engaged in performing an act that by his own avowal is pious. His father neglected the care of a murderer in his charge so completely that the murderer died as a result. This neglect on his father's part Euthyphro considers tantamount to murder, and out of piety he is intent upon prosecuting his father. Socrates is much impressed with the knowledge of a man who can so nicely distinguish between piety and impiety that he can prosecute his father piously.

Socrates begins his inquiry by a straightforward request for definition. "And what is piety, and what is impiety?" he asks.⁴ Euthyphro answers, "Piety is doing as I am doing; that is to say, prosecuting any one who is guilty of murder, sacrilege, or of any similar crime—whether he be your father or mother, or whoever he may be—that makes no difference; and not to prosecute them is impiety." Euthyphro cites the example of the gods as proof that what he is doing is pious.

After determining that Euthyphro really believes what he says about the gods, Socrates returns to his question, "At present I would rather hear from you a more precise answer, which you have not as yet given, my friend, to the question, What is 'piety'? When asked, you only replied, Doing as you do, charging your father with murder." Euthyphro answers, "And what I said was true, Socrates," Socrates returns, "No doubt, Euthyphro; but you would admit that there are many other pious acts?" Euthyphro admits there are, at which Socrates says, "Remember that I did not ask you to give me two or three examples of piety, but to explain the general idea which makes all pious things to be pious. Do you not recollect that there was one idea which made the impious impious, and the pious pious?" Euthyphro remembers and Socrates asks, "Tell me what is the nature of this idea, and then I shall have a standard to which I may look, and by which I may measure actions, whether yours or those of any one else, and then I shall be able to say that such and such an action is pious, such another impious." Euthyphro then answers, "Piety, then, is that which is dear to the gods, and impiety is that which is not dear to them."

Let us pause a moment to examine what Socrates is up to. Clearly he is not conveying information to Euthyphro. He seems to be concerned to elicit a definition from Euthyphro that can be used to judge individual instances of piety or impiety. There is no suggestion from Socrates of what the definition may be, though he points out to Euthyphro that citing examples is not what he meant by defining. He wants to know what all acts of piety have

* This and the following quotes are all from the *Euthyphro*, Jowett translation.

in common. Once he elicits a proper definition from Euthyphro, he can begin to test the definition. But first he must attempt to capture the defining characteristic of piety. What is a definition that enables one to recognize acts of piety and impiety? Neither Socrates nor Euthyphro thinks the request improper nor is there any disagreement over whether or not there is such a thing as a defining characteristic. They are working within the framework of common agreements, and Socrates is trying to discover whether the way Euthyphro thinks of piety is true. If Euthyphro gives an adequate definition of piety, it will cover all the instances of piety that Socrates or anybody else can think up. If Socrates can construct from the definition a possible example of piety that Euthyphro does not want to admit then Socrates can force Euthyphro to acknowledge that the standard by which he recognizes an instance of piety is not the same as that set forth in his definition and, therefore, his definition must be modified. If his definition must be modified, then Euthyphro must admit that he has not given a definition which shows he knows what piety is. Obviously the teaching principle involved in this rather complicated process is not a very simple one.

Let us return to the dialogue. Socrates gets Euthyphro to agree that the gods, like men, disagree over what things are good and evil. From this admission he proceeds, "Then the same things are hated by the gods and loved by the gods, and are both hateful and dear to them?" Euthyphro admits that this is true, and Socrates answers, "And upon this view the same things, Euthyphro, will be pious and impious?" This question obviously destroys Euthyphro's definition of piety, for if piety is what the gods love and some gods love one thing and other gods hate the same thing, then the same thing is both pious and impious.

For contrast, perhaps we could look at an example of programmed instruction taken from what is now acknowledged as a "classic," Holland and Skinner's *Analysis of Behavior*.⁵ The questions and answers are presented on separate pages. There are blanks left in the questions that are to be filled in by the "slave boy." After he has responded, he can turn the page and see if his response was correct. I shall quote a section from the book in which the term "reinforcement" is being introduced.

Question: "Performing animals are sometimes trained with 'rewards.' The behavior of a hungry animal can be 'rewarded' with _____."

Answer: (on next page) "food"

⁵ James G. Holland and B. F. Skinner, *The Analysis of Behavior* (New York: McGraw-Hill Book Company, Inc., 1961). The following section is quoted from the beginning of Set 7, pp. 41-45.

- Question: "A technical term for 'reward' is reinforcement. To 'reward' an organism with food is to — it with food."
- Answer: "reinforce"
- Question: "*Technically*, speaking, a thirsty organism can be — with water."
- Answer: "reinforced (NOT: rewarded)"
- Question: "The trainer reinforces the animal by giving it food — it has performed correctly."
- Answer: "when (if, after)"
- Question: "Reinforcement and behavior occur in the temporal order: (1) —, (2) —."
- Answer: "(1) behavior, (2) reinforcement"
- Question: "Food given to a hungry animal does not reinforce a particular response unless it is given almost immediately — the response."
- Answer: "after"
- Question: "Unlike a stimulus in a reflex, a reinforcing stimulus — act to elicit the response it reinforces."
- Answer: "does not (will not)"
- Question: "A reinforcement does not elicit a response; it simply makes it more — that an animal will respond in the same way again."
- Answer: "probable (likely)"
- Question: "Food is probably not reinforcing if the animal is not —."
- Answer: "deprived of food (hungry)"
- Question: "If an animal's response is not followed by reinforcement, similar responses will occur — frequently in the future."
- Answer: "less (in-)"
- Question: "To make sure an animal will perform, the trainer provides — for the response frequently."
- Answer: "reinforcement(s)"

The differences between the two techniques are so striking and so obvious that they scarcely need comment. No automated or programmed technique can be accurately labeled "Socratic" because every such technique sooner or later furnishes a correct answer after the learner furnishes an answer of some sort. An automated device cannot take an answer and explore its possibility in whatever kind of situation can be imagined. Its answers must be available

when the pupil begins his tutorship. The best that an automated device could do with "What is piety?" is furnish numerous variant answers. How could it conceivably frame a direct response to whatever definition or lack of it the learner happened to propose? Perhaps responding to a wide open choice given to the learner is within the limits of our most complex computers, but one suspects that responding like Socrates is not. How much less is a Socratic response available to a programmed text!

We need not return to our Socratic dialogue to trace in detail the results of Socrates' inquiry with Euthyphro. Several results of the dialogue, however, are worth noting. Euthyphro is not enlightened when he leaves Socrates. He knows only that he has not been able to answer Socrates' questions with any success. One might guess that he knows he does not know what piety is, but this is not so certain. One suspects Euthyphro thinks in his heart of hearts that he really knows.

Perhaps a more serious consequence of the conclusion of the dialogue is that the reader does not know what piety is either. At least if he does, he did not learn it from Socrates, for Socrates does not offer any definition of his own. He does not teach anything about piety in any very obvious sense. The only thing the reader might claim to have learned from the dialogue is something about Socrates' method and, if the reader is clever, something about the assumptions Socrates brings to inquiry; but clearly Socrates does not teach these. What, then, is the Socratic method?

It is a method of inquiry in which one seeks to determine what the true natures of things are. The object of the inquiry is a definition that captures the very essence of a thing. Definitions are tested by mentally seeking their consequences for different cases. In the inquiry, clear instances of the thing being inquired after are presumably recognizable by everyone. The experience of every rational adult supplies sufficient data for the inquiry. It is not an inquiry into things that have not yet been experienced but an inquiry into the meanings of experience as it is presently held. What is piety? The question presumes experience with pious acts. There is no indication that one cannot know what piety is, but there is some indication that most people do not know and that coming to know is an intellectually arduous process.

The inquiry is about how to organize the data common to adult experience. The first principle of the method is to begin with a trial definition and to test the definition against the combined wits of those engaged in the discussion. The procedure is necessarily unstructured because the direction of the inquiry depends entirely on the trial definition. Neither the appropriate questions nor the appropriate answers are apparent at the beginning of the inquiry, and what will be appropriate depends upon the initial formulation by the person who is presumably in the role of the student. In a very real

sense, there is no right answer in the first attempt at definition. There is simply a starting point.

If one learns anything from the Socratic method, he probably learns to bring forth counter instances. He learns that what one does to a definition is test it by examples from his experience and imagination. He learns that the most serious mistake is to take a generalization or definition without thorough examination, and he learns that there are many worse things than doubt or uncertainty. But if he learns these things, he does not learn them because he has been taught them by the Socratic method. He may learn them by using the Socratic method. But to use it is hardly to have someone teach toward you with it. What would one teach by the Socratic method? Socrates did not teach anything unless one can say Socrates taught by his example. He developed his method to inquire after truth. It was a method for inquiring into the use of language and, he thought, into the accord between language and reality. Is this what one means when he claims that he teaches by the Socratic method? Hardly; who would have the courage to inquire into reality, or worse, to teach about reality?

Perhaps it is worth pointing out too that Socrates used his method only among people of full experience, that is, adults. Even the *Meno* is no real exception to this. He used his method to find out what people knew. One might say that he meant to lead them to truth by exposing their ignorance, by getting them to think. But in a very real sense he got them to think about what they already knew, i.e., their own definitions and the relationship between these and instances covered by their experience. He certainly asked them to rely upon no authority for definitions other than themselves and no authority for the legitimate connections between ideas other than their own rational sense. The arbiter of disputes was what appealed to the inquirers' sense of rationality. There was no higher court and no authority other than this. Each man was granted to have a sense for what is rational, and Socrates never urged that one listen to him rather than to rationality.

Perhaps more than anything else one learns from contact with the Socratic method to believe that discussion is never fruitless because there is a spark of rationality in each man that will lead him toward the truth. Can one be taught something like this by the Socratic method? Perhaps so, but the farthest thing from what one can be taught by the Socratic method is a set of correct responses. The Socratic method is simply not useful when the proper answers to questions are already known. The method itself is a way of exploring the kinds of answers that can be given to questions and perhaps a way of weeding out bad answers and moving toward good ones.

Do teaching machines use the Socratic method? No, and neither do most other teaching methods. I repeat, Christ was a teacher; Socrates was an in-

quirer. No matter how much we would like the two roles to be the same, they are distinguishable. Of course, any teacher can function in both roles, but it makes sense to realize that they are not the same. It is simple confusion to think that teaching is inquiry or that an efficient method of inquiry is by that token an efficient method of teaching. Teaching machines may be most efficient at teaching, but how can they be efficient at inquiry? Perhaps we can just drop Socrates from the vocabulary of the teaching method devotees.

The Editorial Board welcomes comments on articles, reviews, and letters that have appeared in the REVIEW. Communications should be addressed to: HARVARD EDUCATIONAL REVIEW, 8 Prescott Street, Cambridge 38, Mass. Letters from readers will be published, or published in part, at the Editors' discretion.

To the Editors

RELIGIOUS SCHOOLS AND "SECULAR" SUBJECTS

There are two ways of reading Mr. George R. La Noue's recent articles in these pages, "Religious Schools and 'Secular' Subjects" [HER: Summer, 1962]. It can be read, on the one hand, as a brief of the prosecution's case against the providing of federal funds under the National Defense Education Act for loans to religious schools to assist their programs in the sciences, mathematics, and languages. Or it can be read, on the other, as an example of an unhelpful approach to the problem of federal aid to education. Read the first way, it is an effective and persuasive argument. But, as it turns out, the very success of his argument serves to underscore the article's inadequacy when read from the second point of view.

Mr. La Noue's argument is, at first

glance, a simple and direct one. His purpose "is not to explore the contradictions in the religious school-secular subject argument, but to show that under current practices in parochial schools . . . the religious and secular aspects of education are not separated by subject matter in parochial schools." Still more specifically, he states that "I merely wish to show that, contrary to the assumptions behind Section 805 of the National Defense Education Act, sectarian material has been integrated into the teaching of sciences, mathematics and languages in parochial schools. Religious doctrine *can* be taught in an algebraic formula or, at least, in an arithmetic book." Mr. La Noue then presents examples from a number of text books currently used in parochial schools to show that, as a matter of empirical fact, a vigorous attempt is made to integrate religion into otherwise "secular" subjects. After these

instances are presented, he then concludes that "It has been demonstrated that the assumption that science, mathematics and modern languages are 'secular' subjects as taught in contemporary parochial schools is false."

For my part at least, I find it difficult to deny the force of Mr. La Noue's argument. This does not mean that it is an air-tight argument. On the contrary, it is possible to quibble about a number of Mr. La Noue's logical steps. It does not follow, for instance, that because an attempt is made to integrate religious matter into mathematics it thereby ceases to be a "secular" subject. Anyone at all familiar, say, with algebra or set theory would realize how absurd it would be to claim that their formal principles could in any way be termed religiously significant simply because it was possible to apply them in instances involving religious subject matter. The fact that one can say "two nuns plus two nuns equals four nuns" hardly turns "two plus two equals four" into a religious rather than a mathematical truth. In short, mathematics is a formal and religiously indifferent discipline, in no way changed by the kinds of uses to which one puts it. Just because Catholics might find ways of illustrating the binomial theorem which might serve the cause of religion hardly turns the binomial theorem into a religious theorem. (Whether certain Catholic educators realize this fairly obvious point may, however, be doubted.)

On the whole, however, I think Mr. La Noue's argument would convince an impartial jury, however much some mathematicians in the jury might find his understanding of mathematics a trifling uninformed. Mr. La Noue is perfectly correct in showing incredulity in the face of some Catholic claims that a sharp distinction can be drawn in the

teaching in parochial schools of religious and secular subjects. Indeed, it is commonly accepted among Catholic educators that one of the challenges facing Catholic education is to break down such a distinction in the minds of students. The great aim today is to show them that religion has a bearing on all aspects of their lives and is not something that can be sealed off hermetically from the ordinary routine of life.

So far, so good. But has Mr. La Noue made any contribution to the genuine problems which federal aid to parochial schools poses? I think not. At most, he has deflated one line of Catholic argument and has shown Congressman Pucinski to be uninformed on the nature of some Catholic text books. That, I suppose, is a useful (though minor) contribution. Unfortunately, one of the reasons this nation has made so little progress on the issue of federal aid to education is that minor contributions of this sort are taken to be major ones. What they do is simply enable us to evade the real problems. Is not the major problem facing American education that of guaranteeing that every American student will have the best possible education that human ingenuity can devise? With that overarching aim before all of us, just what contribution has Mr. La Noue's study made?

Does he care to argue that the public good will be served by denying parochial schools the opportunity to develop their ability to produce better trained mathematicians, scientists, and linguists? Is he perfectly happy to accept the fact that, as the parochial schools meet increasingly difficult financial problems, they are bound to turn out students inadequately trained in important disciplines of public concern? Since, as a matter of hard fact, millions

of American students attend parochial and Catholic secondary schools, how does he propose that the nation assure itself that these students will be able, to the best of their ability, to make some contribution to the common good? Is he willing to say that, once a parent decides to send a child to a religious school, the education of that child is no longer a matter of public interest or concern? That only the education of public school children is? If he is willing to say that, is he willing to go even further and say that it does not matter what kind of person the parochial school turns out? Finally, would he be willing to assert that the country can afford to be indifferent to the claims of many thousands of Catholic parents that some portion of their tax monies not be denied to them simply because they have chosen to give their children a religious education?

What, in brief, is good public policy concerning religious schools? It seems to me strange to hear someone say, in effect, that it is good public policy to deny religious schools the monies necessary to raise their standards. No one, as far as I know, has attempted to claim that a mathematician who is the product of a religious school is necessarily a bad mathematician or that he could not conceivably make some contribution to the national good. I doubt that Mr. La Noue himself would care to say that. But the purpose of the NDEA is to assure this country of a better supply of well-trained mathematicians, scientists, and linguists. Can that Act possibly achieve this end if a large portion of American students are denied the right to any funds provided for by the Act?

But, of course, Mr. La Noue does not directly face any of these questions. So far as I can judge, he seems little in-

terested in the success of the Act; and even less interested, as a citizen, in the quality of education in religious schools. His concern is solely the Church-State problem involved in the Act's provisions. But it is precisely this narrow way of approaching the great problems of American education (which inevitably must involve religious schools) that makes it difficult for all of us to work out some creative, viable solutions. The constitutional problem is only one of the many problems involved in the issue of federal aid to religious schools. By acting as if it were the only one of any importance, Mr. La Noue's study throws sand in our eyes. To be sure, many of the Catholic arguments throw some sand as well. It is about time both sides ceased such tactics. The great fault of many Catholic educators is that they have little concern for public education; the great fault of many non-Catholics is that they are unwilling to recognize the possibility that religious schools can make a valuable contribution to American life.

DANIEL CALLAHAN
*Associate Editor,
The Commonwealth*

I should like to comment on Mr. La Noue's article, and further, on the boundaries within which this and other arguments are being advanced.

Although Mr. La Noue remarks that 60% of the books he examined were high school or junior high texts, most of the examples cited seem to be for the lower grades. (It is hard to be sure of this, since only in a few cases are grade levels cited.) Particularly lacking are examples from such "hard" subjects as chemistry, physics, geometry, algebra, and calculus. Examples from geography and arithmetic texts are indeed included, but these are lower grade

courses. The only upper level science subject represented is biology, and when we read about Roman Catholic teacher's manuals which stress the evils of artificial birth control (p. 271) and Seventh Day Adventist texts which show time scales for the Flood (p. 285) we are less impressed than if we had been shown examples of liturgical incursions upon a discussion of spirogyra, or a fundamentalist account of the vascular system. Although Mr. La Noue's examples are proof positive of religious influence upon the scientific curriculum, they are poor examples of a *pervasive* influence, since they are precisely those examples which one would most expect to find. Mr. La Noue remarks, "There is apt to be more religion in biology than in organic chemistry; more in arithmetic than in calculus" (p. 289). The reader, however, reasons that if there is *more* in one than the other, then there must be *some* religious influence present in the organic chemistry textbook, and he would like the opportunity of seeing just how much there is.

It is to be regretted that Mr. La Noue, in marshalling these examples of church school textbooks, could not have given us a somewhat clearer idea as to the extent of their use. He remarks in a footnote that more textbooks are available at the elementary school level, since the parochial school market is larger there (p. 289). But of course it is the high school science courses which are of the most interest. Not only would one like to hear about special textbooks used in such courses in church schools, but one would also like to know to what extent standard textbooks are in use. Mr. La Noue does go so far as to say that the percentage of standard textbooks is much higher in non-Catholic schools owing to financial considerations, but he gives us no idea as to the

percentage of standard textbook usage within denominations and according to grade in school.

Lest the spirit in which these comments are offered be misinterpreted, let me state that they are directed toward what I take to be an ambiguity in the pitch of this article, namely, that between scholarly inquiry and debate. Viewed as debate, there is nothing to object to here, although there is much for proponents of other views to question. Viewed as scholarly inquiry, however, there is lacking something of the objectivity and breadth that one might ask. This should not obscure the fact that Mr. La Noue has given proof positive that some "secular" subjects are not taught in a secular way in church-run schools. In questioning his method I am simply inquiring as to how far it is possible to generalize from the evidence presented. For Mr. La Noue attempts to span the gap between what *is* and what *ought to be*. We can question, it seems to me, not only to what extent his "*is*" is, but also whether his "*ought*" (One ought not to violate the First Amendment) is the pertinent *ought*. This question, and a related one as to the bearing of this and similar articles (pro and con) on just what we are to do with NDEA funds, leads directly to the second point I should like to make.

It would be more regrettable if this controversy were to be argued out entirely by representatives of various religious organizations, or entirely upon the grounds of separation of church and state versus some notion of financial fair play for church schools. In situations where serious practical issues are at stake, a too hasty resort to one or another single line of reasoning, or too complete a reliance upon such, may result in blocking a program which is worthwhile. The fundamental question,

it seems to me, is the one of whether it is in fact worth diverting tax money into educational channels, and if so in the case of NDEA, what the program is intended to accomplish, and how, specifically, that aim can best be accomplished. The degree of urgency prompting NDEA should be taken into consideration in deciding what effect possible violation of the First Amendment will have on any program of action. To see this problem in terms of "either/or" is to ignore possibilities of fruitful compromise. If, for example, we agree that government aid which goes into textbooks such as those cited by Mr. La Noue is in violation of the First Amendment, but are of the opinion that the educational objectives of NDEA are of the first importance, we should be inclined to search around for an alternative (such as stipulating that the money be spent only for standard texts). The atmosphere in which representatives of different denominations clash over matters of national policy is not necessarily an atmosphere conducive to bringing out those principles upon which a decision most to the *national* interest may be reached.

WALTER H. CLARK, JR.
Harvard University

Mr. La Noue has written a complex article. On first reading it appears to be an empirical study testing the hypothesis that the secular subjects are truly secular as they are taught in parochial schools. An examination of textbooks and teaching manuals published for use in parochial schools casts doubt on the hypothesis. . . .

As an empirical study, the article has some flaws. The author does not discuss the sampling procedure used to select over one hundred books. We are told nothing about the number of pa-

rochial school systems that purchase the books he reviews, compared to those that purchase standard texts. Most of his examples are drawn from elementary texts, yet we are not told which parochial systems want NDEA funds and for which grade levels. The numerous quotations from teachers' manuals do not provide conclusive proof of the educational practices of individual teachers. Just as "the opportunity to present religion in these selections is ever present" (p. 276), so too is the opportunity not to present it.

What the author does provide is some evidence to support the hypothesis that those parochial schools using the textbooks cited and implementing the suggestions in the manuals cited are not teaching those subjects in a truly secular way.

The article is more than an empirical study, however, and on other than empirical grounds is subject to criticism. The author claims that such educational practices as he describes represent the "standard definition of educational philosophy for the Catholic Church." He finds the "core" of this definition in an arithmetic book which quotes a papal encyclical suggesting that the entire organization of a Catholic school "be regulated by the Christian spirit" (p. 256).

In developing his argument, the author implies, first of all, that "Christian spirit" and "Catholic doctrine" are interchangeable terms, and, furthermore, that there is some kind of necessary and direct connection between what he defines as the "Catholic philosophy of education" and the educational practices (or suggested practices) that he reviews. "As will be shown, even into subjects which are undeniably scientific, parochial schools inject a considerable amount of religious interpretation and even some sectarian doctrine. From the

point of view of the Catholic philosophy of education, it could not be otherwise" (p. 262).

I question whether there is yet such a thing as a Catholic philosophy of education, particularly in a pluralistic democratic society. Where such practices as Mr. La Noue describes do exist, it is more reasonable to claim that these are not the expression of a rational philosophic inquiry into education but rather the remnants of protective policies adopted more than seventy-five years ago by an immigrant group trying to maintain its Church in a "non-sectarian" yet basically Protestant, nativist, often hostile culture.

A brief review of the history of parochial education in this country, such as that which prefaced the Rossi study (Peter and Alice Rossi, "Some effects of parochial education in America," *Daedalus*, Spring, 1961), shows that the present conflict does not stem from philosophical and theological grounds but from the educational and cultural background of those who began the parochial system and thus first interpreted the Catholic position on education in this country. These people lacked a vital intellectual tradition. To this day none has developed. O'Dea (Thomas F. O'Dea, *American Catholic Dilemma*, New York: Sheed and Ward, 1958), suggests that the failure of the Medieval Church to consider the reality of earthly things, the breaking of the intellectual tradition in Ireland before the peak immigration time, the lower-class origins of the American Catholic population, and the defensive posture adopted by both clergy and laity, are some of the reasons for this lack. Where these causes persist in the form of attitudes, fears, latent culture patterns, or whatever, it is unlikely that an intellectual tradition will develop or that edu-

tional practices such as Mr. La Noue describes will be questioned. I know of no group that was able to work out a rational approach to formal education in the absence of such a tradition.

I question whether what passes for the integration of religion and life is really that at all. Granting that some Catholic educators, agreeing with Mr. La Noue, believe they have successfully integrated religion and subject matter by having Catholic children add up Catholic items, there are others who believe that such educational practices might successfully divorce religion from life (along with arithmetic).

The self-critical nature of so much contemporary Catholic writing seems to indicate (if self-appraisal can be called a sign of maturity) that the Catholic Church in America is coming of age. The growing role of the laity in the temporal affairs of the Church (and education in the secular subjects is certainly such an affair), the introduction of such concepts as "dialogue," "shared-time," "cooperative separation," "religious pluralism," "accommodation," and many others, imply an attempt to arrive at constitutional consensus through public argument. One wonders whether Mr. La Noue's article has contributed much to this argument. Perhaps it has, by reminding all of us that the problem has no simple solution. Like the creation of the problem, the solution will take time. To say that certain educational practices are necessary is to propose a false solution: just as to regard the current interpretation of separation of church and state as an absolute ideological idol is to have an historically inaccurate notion of the Constitution.

I should like to conclude this comment with a passage from the same encyclical (Pope Pius XI, *Divini Illius*

Magistri, 1929) from which, via an arithmetic text, Mr. La Noue obtained his definition of the Catholic philosophy of education:

. . . These noble traditions of the past require that the youth committed to Catholic schools be fully instructed in the letters and sciences in accordance with the exigencies of the times. They also demand that the doctrine imparted be deep and solid, especially in sound philosophy, avoiding the muddled superficiality of those "who perhaps would have found the necessary, had they not gone in search of the superfluous."

MAUREEN E. DONNELLY
Harvard University

MR. LA NOUE REPLIES:

Mr. Clark's comments fall into three categories. First he is concerned about my sample. The evidence presented in my article was only about one-quarter of the material gathered in the unpublished manuscript (footnote 23) which in itself could have been much longer. The article was confined to presenting one or two examples of the different aspects of the religious content in "secular subjects" without repetition on any one of them. Regarding the relationship between elementary and upper grade examples, the books cited in my article were almost equally divided between elementary (20) and junior-senior high (18). As I pointed out, according to statute, the Section 305 of NDEA can be used to aid any stage of education. It is my impression, however, that strictly elementary schools have not participated much thus far.

Mr. Clark would have preferred that I extend the scope of my research to describe the totality of the parochial school curricula, including the ratio of

sectarian to secular texts and more accurate generalizations about the pervasiveness of religion in this curricula. I appreciate the interest this question holds for students of education, although the research task is of overwhelming proportions for a single scholar. No person or agency today has such figures. But I submit that the question is irrelevant to my thesis. I specifically confined myself to proving that the "secular subject" concept as it was presented in the Congressional hearing on NDEA was based on false assumptions. The assumption during the testimony was that, because of the nature of sciences, mathematics, and languages, it was not possible to teach religion in them and/or that it was never done. The evidence I marshalled led me to the carefully limited empirical conclusion "that at least some religion is being taught in some of the subjects eligible for subsidy under NDEA" (p. 291). Mr. Clark, it turns out, is willing to concede that much.

Mr. Clark goes on, however, to question my normative judgment that these empirical findings affect the constitutionality of Section 305 of NDEA. My judgment, however, was based flatly on the legal opinion in the Department of Health, Education, and Welfare's brief on which Section 305 is based (p. 258), and on the legal framework explicit in the rest of the Congressional testimony. If, as is documented in the testimony, the participants in the decision accepted the constitutional principle that public funds could not be used for religious teaching and extended Section 305 on the assumption that they were aiding only secular subjects, then I think new evidence regarding the religious aspects of these subjects does raise constitutional problems.

Mr. Clark hints, however, that constitutionality rests on "to what extent"

religion is being taught and states that I failed to prove that there is a pervasive religious influence in these subjects. ("Pervasive" is a term I did not use.) This is Mr. Clark's concept of the constitutional question, but how does he square it with what the Supreme Court has said four different times—"The 'establishment of religion' clause of the First Amendment means at least this: . . . No tax in any amount, large or small, can be levied to support any religious activities or institutions, whatever they may be called, or whatever form they may adopt to teach or practice religion" (see also footnotes 84 and 85). This statement is not a "how much is too much religion" consideration, but an absolute principle forbidding public tax aid for religious schools and religious education.

Finally Mr. Clark suggests that where there is a sound educational program involved, questions of First Amendment liberties should not receive priority. (I object to his implication that these questions are simply quarrels between church groups, an implication which ignores the historical role of educational and civil liberties organizations.) The priority of constitutional liberties is a question of personal political philosophy, I suppose, but to accept a program of questionable constitutionality based on a false assumption of reality seems to me to be a high and unnecessary price to pay for federal educational support. Father Charles J. Whelan, S.J., writing in *America* (June 16, 1962) an otherwise critical comment on my argument, stated flatly,

In spite of all this, I am grateful that the argument was made. It provides another opportunity (or rather, goad) for the clarification of a cardinal point. In the whole Federal aid to education contro-

versy, no solid constitutional argument can be built in terms of a division of subjects. Most private nonprofit schools, Catholic and non-Catholic, integrate religious instruction with all their courses. That is one of the reasons they exist. From the viewpoint of the churches, it may well be the principal reason (p. 400).

The "secular subject" concept cannot provide a stable solution to the great educational problems which face our nation. I am all in favor of seeking alternatives within a constitutional framework (see footnote 79), but I believe that all those based on the "secular subject" concept would be impossible to administer or police.

In response to Miss Donnelly I must repeat that my conclusion was a limited one that could be reached without sampling the entire universe of parochial school teaching or texts. But, if I have proved that "at least some religion is being taught in some of the subjects eligible for subsidy under NDEA," Miss Donnelly wants to assert that some of these courses in some parochial schools are quite secular. I have never doubted that, and for that reason I drew a limited conclusion. The essential question is what legal difference Miss Donnelly's assertion makes. Is she suggesting that the government seek out the most secular schools or the most secular courses within those schools in the parochial systems for public aid? This would involve government investigation and supervision of parochial schools. Or is she suggesting that the government should ignore the fact that religion is being taught with public funds in the parochial school system? As I have suggested, this is not a constitutional alternative.

Miss Donnelly's expansion on the diversity and changing currents within Catholic educational philosophy is an interesting addition to this discussion. Again, however, I don't believe it reaches any of the legal questions. Miss Donnelly chides me for my assessment of Catholic philosophy. Nevertheless, I believe I was right, as Mr. Callahan and Father Whelan have conceded, in saying that the integration of religious materials into all subjects is the traditional educational philosophy of parochial school educators. It is the reason for the existence of the comprehensive parochial school.

Certainly, the authors of the texts I cited, almost always clerics or laymen writing under the "approval and encouragement" of ecclesiastical superiors, thought they were reflecting the Catholic philosophy of education. If they did not reflect it at its best then it was not my function to criticize. My intent was merely to report that this kind of teaching exists and to raise questions concerning our current public policy regarding it. Neither Congress nor the Courts can consider what Catholic philosophy of education "ought" to be or how successful parochial school teaching practices are in promoting "true religion." They can only examine the attempt, clumsy or clever, to integrate religion into these subjects as it now exists.

Mr. Callahan's comments are judicious and fair-minded, the kind of analysis one expects from *Commonweal*. Since he is willing to concede that my argument "would convince an impartial jury," there is no point in my further discussing the basic thrust of my research.

One minor point can be cleared up, however. There are at least two ways

to look at the integration of religion into the "secular" subjects: philosophically and sociologically. I choose the latter approach because that is the way Congress and the Courts necessarily have to deal with the issue. *Dickman v. School District, Oregon City* 366 P. 2d 533 (1961) is the perfect example of this judicial approach. After examining evidence similar to that presented in my article, the Oregon Supreme Court held that "the purpose of the Catholic Church in operating schools under its supervision is to permeate the entire educational process with the precepts of the Catholic religion." The Court then ruled that state provision of textbooks for parochial school students violated separation of church and state.

Mr. Callahan raises a philosophical question. I will quickly concede that philosophically there is no way of teaching the binomial theorem or long division that makes the mathematical process religious, although teaching evolutionary theory might be a different matter. That the mathematical process itself is not religious does not mean that, sociologically speaking, religion is not being taught in the mathematics class. Rev. Joseph H. Fichter, S.J., in his book *Parochial School: A Sociological Study*, points out, "It is a commonplace observation that in a parochial school religion permeates the whole curriculum and is not confined to a single half-hour period of the day. Even arithmetic can be used as an instrument of pious thoughts. . ." Rev. Fichter then cites a problem like the ones in my article (pp. 271-3). It is this kind of sociological evidence that is legally relevant.

Mr. Callahan's major concern is that my article, while correct about a "minor" point, adds little to the solution of overall educational problems. I had

not thought that it was a prerequisite of public debate that a scholar be able to solve all future questions before challenging an existing solution. However, a more extensive monograph of mine on the historical, legal, and policy problems in the public aid to parochial schools issue will be published in April. In retrospect, NDEA itself has become a fairly successful program, but that relatively tiny part, Section 305 (and that was the only part I considered), has been ineffective for many reasons. Alone, it probably would not have been worth attacking except that many in and out of government saw the "secular" subject compromise as the hoped-for constitutional solution to substantial federal aid to parochial schools. It was necessary to document the discrepancy between the assumption and the facts in the "secular" subject concept before it did further damage. If this has caused excessive concentration on a minor point, then I believe the blame should fall on those who in the overall controversy leap to exploit precedents like Section 305.

To the charge of unconcern over educational standards, I plead not guilty. It may be that if there is a serious decline in standards in parts of the parochial school system, then the system is overexpanded and enrollment should be limited until standards are raised. I understand Catholic educators in St. Louis have made this decision. Secondly, the states have an obligation to see that educational standards are met and perhaps they have been too lax in this regard. The problem of standards cannot be solved, however, by diverting already inadequate tax-raised funds from public education to parochial education. Any public aid substantial enough to really help the financial situation of the present parochial schools would both provoke and tempt other

groups to set up competing parochial systems. I am firmly convinced that such aid would set off a chain reaction growth of private schools that would be disastrous for public education and ultimately for our democracy itself. If this is true, then the First Amendment issues are not peripheral in maintaining educational quality.

I recognize, however, that the solution of limiting enrollments and state enforcement of standards, even if necessary, are negative and short term answers. There is another solution which is long term, constructive, and constitutional—shared time (footnote 79). I will not list the many advantages of shared time for both public and private education, but only indicate how the concept fits in with my research. While I think I have shown that contemporary teaching practices in some parochial schools integrate the religious and the secular thoroughly, making federal aid unconstitutional, it does not have to be that way. The comprehensive parochial school is an extreme solution to the very real problem of religious education. Religious educators will always want the application of religion and moral values to be emphasized and related to all areas of learning, but it is not absolutely essential that this all take place at the same time and in the same classroom.

Practically, the value questions in science for Catholic students could be handled in parochial school philosophy classes while their laboratory work with all the expensive equipment could be taken in public schools. This would involve some compromises in the Catholic philosophy of education I described (although none at all in the one Miss Donnelly advocates as the coming thing), but the loss would be more theoretical than actual if the synchronization between the two spheres of edu-

cation were well done. Congress and several states are becoming very interested in the shared time concept as a way out of our present public-parochial deadlock and as a more efficient way of providing expensive educational equipment for local schools. It is my hunch that shared time will be the pattern of much of American education in the future.

EDUCATIONAL PLANNING IN UNDERDEVELOPED AREAS

In underdeveloped countries, once national planning goals are set in cultural terms (education levels), economic terms (gross product), or social terms (morbidity), a status assessment of human resources must be made and projected over time and in respect of these goals. This assessment must cover formal educational and training institutions as well as all of the wider cultural influences that conduce toward a morally and intellectually prepared population. The comparison of the results of the status assessment with the goals yields one or a set of strategies that will guide the policy and practice of human resource development through formal and informal education and training. The selection of a strategy for educational development is educational planning. [See Adam Curle's article, "Some Aspects of Educational Planning in Underdeveloped Areas," *HER*: Summer, 1962.]

The methods and models of educational planning come out of a variety of disciplines, with no one social science having primacy. In fact, the planning will be strong only insofar as it avoids too heavy a reliance on any one of the social disciplines, be it sociology or economics, and instead draws on the

entire range of methods and models that the social sciences have to offer. To say that it is not a pure discipline is not to say that it is not a complicated and demanding task. The most straightforward plan may require the services of history, demography, statistics, mathematics, sociology, psychology, anthropology, economics, political science, and pedagogy. The grist for planning and decision mills will come in both quantitative and qualitative terms.

United States schools and scholars have so far made scant contributions to the field, for a variety of reasons. For one, the severe economic restrictions that make educational planning a necessity in underdeveloped countries have not had the same force in the United States. Furthermore, the United States has never had to engineer its economic and social development as consciously and explicitly as the less favored countries must. Human resources being central to the problem of social and economic development, and education being central to human resource development, the problem of planning well for education has been more acute in these countries. (They cannot afford to produce an oversupply of creative artists when they need agronomists. But, of course, they do.)

Also, the dispersed local control of education in the United States makes educational planning less effective and less necessary than in countries with national educational systems. And the organization of U.S. universities into pure fields and disciplines has tended to lessen the chances of producing planners with competence in the many requisite areas.

If the United States is to respond to the need for assisting the underdeveloped countries, it must train men for hybrid jobs such as educational or human resource development planning,

and stop sending out so-called pure social scientists who go abroad to ride their own disciplinary hobby horses. There is presently in the United States not one University or School of Education where such training is offered on a systematic basis. Abroad, the educa-

tional planners may not be as numerous as the educational administrators, but they are at least as important.

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NEW FEATURES IN THE REVIEW As the note from the Editorial Board on page 4 of this issue remarks, the letters to the Editors which appear above initiate a new feature in the REVIEW. In the circumstances it was necessary for us to solicit most of the correspondence in this issue, and we are grateful to the authors for giving "To the Editors" so auspicious a start. We hope readers will take seriously our invitation to send us their comments on the articles, reviews, and letters we publish, so that before long this new feature will be self-perpetuating.

In our next issue (Spring 1963) we will carry for the first time the second of our new features, a Discussion section, in which D. J. O'Connor, Kingsley Price, Wolfgang Brezinka, and Charles Frankel will review Robert Ulich's recent book, *Philosophy and Education*, and will make some further observations on the important topic embraced by this title.

Book Reviews

EDUCATION AND NATIONALISM: AN HISTORICAL INTERPRETATION OF AMERICAN EDUCATION.

Gladys A. Wiggin.

New York, McGraw-Hill, 1962. 518 pp.
\$7.50.

As her title states, Miss Wiggin's book, written as a college text for the McGraw-Hill Series in Education, presents an interpretation of the history of American education. Her thesis is that since 1776 the role of the schools in America has been that of passing on to masses of children in successive generations the values and symbol system of the American nation-state, and that thus the most fruitful theme around which to organize the history of American education is that of the relationship of education to nationalism. In a complex society like ours, the thesis goes, the prime responsibility for the development of loyalty and adjustment

to the nation-state has rested inevitably with the school. The task of making an American has been a complicated one, however, requiring each generation to reshape its educational pattern in such a way that the basically stable concept of the ideal American may be learned in spite of the obstacles to its teaching raised by forces which have continually modified the environment.

In the light of this historical perspective, the accomplishment of the early national period was to describe the ideal American and to shape the common school as a means of its transmission. This latter task, Professor Wiggin feels, was largely completed by New England middle-class intellectuals with the result that by the mid-nineteenth century, the ideal American presented in the textbooks was

. . . Protestant, ambitious, a respecter of work, equalitarian, a

supporter of private property and economic individualism, and highly competitive. He was properly respectful to cleanliness, which was next to godliness, and he bore with Spartan-like firmness the vagaries of the present in order that the future might be secured to his children. (p. 499)

The task of transmitting this image was made ever more complex by a number of forces at work in American society throughout the nineteenth century but with increasing intensity after the Civil War. Scarcely had universal elementary education been established when social and economic changes coming in the wake of industrialism raised new problems for the schools. American educators were forced to realize that national prosperity lay more in industrialization and commercial agriculture than in small scale trade and farming. Moreover, the "uncontrolled expansion of industry" left in its wake a host of socio-economic maladjustments—among them, miserable conditions for youth in factories, widespread malnutrition among urban children, and the inadequacy of parents to deal with their offspring's problems. Equally important, post-war industrialism was accompanied by an unprecedented increase in the enrollment of youth of diverse backgrounds—children from lower classes, from minority groups, from foreign parentage—who somehow had to be taught to accept the middle class American ideal.

The response of educators to these conditions complicating their task was, Dr. Wiggin believes, two-fold. On the one hand was the assumption of added social responsibilities. With the help of laymen and social workers, school people in the period 1860-1918 filled out the ideal of the socially-efficient Amer-

ican by undertaking vocational education and guidance, school lunch programs, and training in home economics and child care; and between 1910 and 1918 under the impetus of voluntary organizations, the urban school house became a social and community center. A second response to social change came in the quarter century after 1890 in the attempt to make both primary and secondary education more meaningful by reforming the curriculum under the aegis of national committees of professional educators. This movement, Professor Wiggin declares, culminated in the report of the National Education Association's Commission on the Reorganization of Secondary Education specifying the *Seven Cardinal Principles of Secondary Education*: health, command of fundamental processes, worthy home membership, vocation, civic education, worthy use of leisure time, and ethical character.

Though marked by the "social crises" of World War I and the patriotic hysteria which followed it, the decade after 1918 was one of little educational change. The Depression of the thirties, however, coupled with the increased percentages of youth attending high school and college, required still further curricular revision which is epitomized by the coming of life-adjustment education and the general education movement.

Such is the historical framework which undergirds Professor Wiggin's study. The interpretation is clearly different in emphasis, if not in substance, from that presented in the typical History of American Education textbook. The organizational structure of the book illustrates this. Instead of following a strictly chronological outline, Dr. Wiggin has employed a chronological-topical framework. Part I, the Backgrounds of the American School Sys-

tem, outlines the central thesis and then considers nineteenth century political, social, and economic influences on American education. Part II traces the Evolution of the American Educational Pattern from the Civil War to the present, but includes two cross-sectional chapters on legislative and textbook influences on school practice. Part III, generally the most interesting section of the book, presents four analytic case studies of local American school systems—in the Old Northwest, among freed Negroes in Georgia, Spanish children in New Mexico, and the polyglot peoples of Hawaii. Each study illustrates a different method of attempting to create the ideal American because each educational pattern was shaped in response to unique social conditions.

All in all then, Dr. Wiggin gives us a refreshingly different look at our educational past. The book, however, is not without shortcomings which are important enough to warrant analysis.

Most serious is the question of the validity of her central thesis, that "it is the meaning of nationalism in any designated society which sets the pattern for the role of schools in that society" (p. 4). Starting with this generalization, Professor Wiggin proceeds to the inference (p. 13) that the change in political status from colonial to independent nation-state in 1776 marked the major turning point in the history of American education. Results of careful recent scholarship would require us to doubt the validity of this assertion. Thus Dr. Wiggin's statement (p. 12) that "the primary school (in the colonies) would hardly have been conceived of either as replacing an enculturative task of the family or as adding a new socializing task" is directly contradicted by Bernard Bailyn's *Education in the Forming of American So-*

society (Chapel Hill: University of North Carolina Press, 1960) which points out that as early as the 1640's many of the enculturative functions of the family were being deliberately transferred to formal instructional institutions (pp. 26-29).

What is at issue here is the adequacy of Professor Wiggin's definition of nationalism as an explanatory principle around which to organize the history of American education. In her opening chapter in which her basic generalizations are set forth, she defines nationalism in F. L. Schuman's terms as "loyalty and devotion to that half-real, half-mystical entity which is the nation-state" (p. 14). Here, nationalism is roughly equated with patriotism, that is, allegiance to a government and the country which it controls. At a later point in the book, referring to the schools of Hawaii, Professor Wiggin notes:

For public purposes and whatever the meaning, the essential task of the schools was and still is Americanization. What the schools have done in that regard can be dimly seen through the congressmen's words, which characterize the efforts as molding these young "into the American pattern and philosophy of life." Such a task meant not only teaching a language in which to communicate, but changing the habits attendant on family and vocational life, shifting the value pattern respecting the nature of government, introducing a prescientific people to the uses of science, particularly in connection with health and diet—and doing all this among a population and in an economy more than ordinarily resistant to Americanization. (p. 476)

Agriculture and shopwork for per-

sons from the fourth grade through adulthood; school cafeterias on remote plantations as well as in city areas; home economics and arts and crafts, through which adaptation to social customs might go forward—these were some of the ways in which the Hawaiian education system sought to assist the children of alien and peasant backgrounds to live as Americans in Hawaii. (p. 493)

In these latter two cases, the concept nationalism has been broadened from simply loyalty to the state to belief in the American *pattern* and philosophy of life (*italics mine*). In other words, education in nationalism has been defined as Americanization, which, in turn, is taken to mean enculturation. If one accepts this latter definition of nationalism, then Dr. Wiggin's implicit thesis becomes more logical than her explicit formulation suggests. What her book demonstrates is not that "the creation of the nation-state (in America) has also created a schooling different from that of previous periods" (p. 21), but that the survival of American society, like that of all societies, depends upon passing on to each generation of children the knowledges, values, and skills deemed adequate to the performance of the adult role in that society; that as society has become more complex, there has been a tendency to rely more heavily on the mechanism of formal schooling for the transmission of the desideratum; that, consequently, changes not only in the political institutions of the society, but in its economic and social structure as well, will be reflected in the content of formal education.

It thus behooves the historian of American education to examine more closely than he traditionally has, the

relationship between social change, broadly construed, and the content of formal education. Professor Wiggin's strongest chapters are those in which she has undertaken this task. Her assessments of social and economic influences on nineteenth century schools, her treatment of the effect of population diversity on education, and her case studies of schooling in the Old Northwest, in Hawaii, and among the minority groups in Georgia and New Mexico are particularly noteworthy in this regard. Conversely, her book is weakest where she follows the more hackneyed method of explaining educational change by centering on pronouncements made by groups of professional educators as she does in her chapters on the national committees of the 1890-1918 era and on the spread of general education since 1930.

In the final analysis, the uneven quality of Professor Wiggin's book may well be accounted for by her own intense belief in what professional educators have generally referred to as "education for citizenship." Her concluding chapter which is prefaced by a quotation from Jefferson's first Inaugural Address repeats her claim that "the overriding purpose of American education has been and is to support republican government." (p. 498) This, she suggests, is the most important lesson which contemporary schoolmen can learn from the history of American education. For if our nation is to avoid "decline toward a minor role among the nations of the world," then educators must not rely on "puny answers" to the schools' problems like the plea for more science and mathematics. Rather they must follow the example of their predecessors and create of education a "moral reformation" designed to provide sufficient energy so that republican government may preserve itself. (pp. 502-503)

Competent historians who start with such definite frames of reference frequently produce studies with both merits and defects. The very force of their convictions may lead them to consider new data and to restructure well-known events in such a way as to add new insights. But since modern society is inherently complex, highly positive frames of reference may lead also to oversimplified explanations and inconsistency of development.

Education and Nationalism has both these assets and these liabilities.

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THE ACADEMIC PRESIDENT—EDUCATOR OR CARETAKER?

Harold W. Dodds.

McGraw-Hill, New York, 1962. 294 pp.
\$5.95.

A professorial wag once noted that the main qualifications required of an academic president are a head of grey hair to lend him an air of distinction and a case of peptic ulcers to give him a look of concern. A less jaundiced view of what has been called "the roughest profession" reveals, however, that it is actually one of the most demanding of all occupations. Although much has been written by and about college and university presidents in the past, it is only recently that the top leadership positions in American higher education have been subjected to systematic analysis.

Among such analyses, *The Academic President—Educator or Caretaker?* is outstanding for its discernment and insight. Since 1957, when he retired after

twenty-four years as President of Princeton University, Harold W. Dodds has been engaged in the study which resulted in his recent book. Dr. Dodds' wit, humor, and insight are such that he undoubtedly could have brought forth a very readable and worthwhile volume by drawing solely upon his own rich experience, but his book is neither a personal reminiscence nor an apologia for the profession as a whole. Much of the material was obtained from observations made since 1957 by Dodds and his associates (Felix S. Robb and R. Robb Taylor) on a variety of campuses.

The unusual perceptivity characterizing all ten chapters of the study is manifested from the start in "The Setting of the Academic Presidency." The next three chapters deal with the president in relation to such matters as academic leadership, the arts of administration, and the realm of the faculty. Chapters V, VI, and VII contain incisive analyses of the basic functions of faculty personnel building, planning, fact finding, budgeting, and the supporting activities of nonacademic personnel, intermediate administrative personnel, public relations, alumni relations, and fund raising. Three final chapters have to do with trustees and the selection of a new president.

This study was made possible by a grant from the Carnegie Foundation for the Advancement of Teaching, and the book is a distinguished addition to that very useful list, The Carnegie Series in American Education. Not only is it recommended reading for all who are directly concerned with colleges and universities, but also it is interesting reading for any who may be curious as to the answer the author gives to the question posed in his sub-title.

LOGAN WILSON
American Council on Education

THE EDUCATED AFRICAN: A COUNTRY BY COUNTRY SURVEY OF EDUCATIONAL DEVELOPMENT IN AFRICA.

Compiled by Ruth Sloan Associates.
Edited by Helen Kitchen.

Frederick A. Praeger, New York, 1962.
542 pp. \$12.50.

This massive tome must unfortunately be classed as a light-weight. It is a sort of guide-book to contemporary education in Africa, a subject of inherently great importance and interest, and is about as informative as a guide-book on most of the countries discussed. (This is not necessarily an insult—*Baedekers* and the *Guides Bleus* are in certain respects valuable works.)

The book comprises, after a brief introduction, sketches of the condition of education in the various African territories. Some of these accounts are very good indeed, having been written by or based on the notes of experienced and well-informed persons, but since nearly fifty different countries and territories are dealt with, it is obvious that most must be treated superficially. In general, however, my criticism is directed more towards the character and structure of the book than its component parts. I frequently speculated as to its purpose. Is it a work of reference? No, because hardly any sources are quoted, there is no bibliography and an extraordinary lack of footnotes (there is also no index, though this is perhaps excusable in a book arranged by countries). Is it a study of educational sociology, showing the condition of an important activity at a vital juncture of the development of the continent? No, because there is no attempt to generalize; or to define widespread trends; or to suggest a relationship between education and nationalistic feeling or economic growth. Is it a work of comparative education? Not really, though

it comes a little closer to this, because the treatment does not lend itself to the identification of significant similarities or differences. Is it a source book for important and little known facts? There are certainly a lot of these (how many people know about education in, for example, Ifni or in São Tomé and Príncipe?) but they have not been arranged on an inter-territorial basis and in this respect a production like UNESCO's unpretentious *Facts and Figures* is really more useful.

What is it, then? Well, it's a big, fat, expensive book which will give one a quite good general idea of what is going on in education anywhere in Africa, but which serves no deeper purpose and which, since things are moving so rapidly, will very soon be out of date. Much effort has clearly been put into the creation of this book. It is sad that so much of it has been wasted.

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THE SEARCH FOR A COMMON LEARNING: GENERAL EDUCATION, 1800-1960.
Russell Thomas.
McGraw-Hill, New York, 1962. 324 pp. \$6.95.

This is an excellent study of the history and nature of general education. It is the best statement I know of the reasons for such a course of study and of the difficulties encountered in trying to formulate one. The final chapter containing several summaries should be carefully considered by both advocates and opponents. If one objects, he should begin at the beginning.

The historical review of the search for a common learning is a valuable addition to the literature on general education. It gives time-perspective as well as status to the general education

movement. It puts the recent experimentation in a scholarly tradition based upon and supported by an irresistible academic force, and thus gives comfort and aid to the lonely or embattled generalist.

The book is objective, describing what is, rather than what ought to be. Still it must be included among the works of the believers. It presents the aspirations, the needs and the convictions which led to the search and the activity.

The argument rests on the functional dualism of American undergraduate education. There have always been two commitments in the liberal arts colleges, one, to provide a broad foundation of cultural education and, two, to give the student preparation in the field of his special interest. The task of this book is to show how the first function has been interpreted and institutionalized historically. As early as 1829 this function was referred to as general education. There is therefore no conflict in goals between liberal and general education. But in practice liberal arts programs became identified, as institutions will, with the current methods, which in the late nineteenth century meant the elective system. In some extremes it was held that all courses were good for this purpose and that the student was the best judge of his needs in this respect. So there were always educational leaders who objected to prevailing practices and in the name of the original objectives advocated new principles and methods of common learning. The criticisms and recommendations progressed from Eliot to Lowell to Conant (among others) and the general education movement is only the latest version.

In his analysis of the movement the author reveals deep insight into the merits and weaknesses of general

courses. He recognizes the basic philosophy on which they rest, the lack of agreement among scholars on what every educated man ought to know, and the need in general courses for a "method of thought" or discipline. He locates the responsibility for the "broad foundation" in the whole faculty but admits the necessity of putting its direction in the hands of the interested members. He knows the importance of administrative structure to the success of the program. He stresses the fact that the program requires the continuous cooperation of the faculty, not only in planning but in effective teaching. He knows that a general course can be exciting to all participants. Furthermore he suggests, I inferred, that one of the chief values lies in the activity itself, i.e. the self-appraisal and the re-evaluation of the curriculum may revitalize the work of the college.

The author has been so close to the movement that there are marks of the association. In the battle of words he rejects the dichotomy between liberal and general, defends the use of "survey" and "orientation," and then advocates the term "general courses," objects strongly to the phrase "courses in general education" and looks askance at "integration." (As to the latter it has always seemed to me that "desegregation" might be more apt.) It surprised me to find here the illusion that thinking in terms of "relationships" may be the most important achievement of the contemporary interest in general education, (p. 99) as if the content of general courses were segments from discrete fields. Then he gets involved in the argument over what kind of courses constitute general education courses and runs the risk of making the "fallacy of the scholar" (pp. 278 and 64).

This reviewer would like to say that

general courses, in the social sciences, for example, should cut a new pattern from the whole cloth of our knowledge of human behavior. They do not merely take something from each of the long established fields or disciplines and show "relationships" or integrate what is inherently one. The pattern is cut to fit the needs of Mr. College-man instead of the specialist. The distinctive feature lies in the design. I firmly believe that it is necessary to make these new patterns and that a general course which has the political scientist, the economist and the sociologist put together some essential and relevant parts of their introductory courses is inadequate. The principle of distribution misses the goal if the courses required are still departmental offerings designed to prepare the professional. There is a significant difference between a two-semester general course, perhaps political economy, which uses all relevant social data, historical, philosophical, and sociological, and a distribution requirement of two courses offered in separate departments. The difference lies in the design.

A large section of the book is given to a review of the experiences in general education at eighteen colleges and universities. The colleges were not chosen because of the merits or defects of their programs. The colleges selected, says the author, are representative, that is, a fair cross section of American institutions, geographically, demographically, in their sources of income, religious affiliations, etc. Several of the colleges which are included have given only lip service to general education. The descriptions are often analyses of committee reports and recommendations and not of operational achievements. The results, says the author, might be the same if other

colleges were included. The results show "diversity" and "stages of experience" but not necessarily the progress which has been made in the "search for a common learning."

WILLIAM VERHAGE
Boston University

STYLE IN LANGUAGE.

Edited by Thomas A. Sebeok.

Published jointly by *The Technology Press of Massachusetts Institute of Technology and John Wiley and Sons, Inc., New York, London. 1960. xiv + 470 pp. \$9.50.*

Hypothetically, interdisciplinary symposia may serve several functions. They may lead to broad and powerful theoretical formulations since they encompass larger and more variegated bodies of data than do meetings within any single discipline. They may yield fresh approaches to the problems of the symposia. Because they expose academicians to alien methodologies and unfamiliar habits of thought of other disciplines, they may serve to re-vitalize approaches to conventional problems within already existing disciplines.

In 1958 an interdisciplinary Conference on Style was held on the campus of Indiana University under the chairmanship of the anthropologist-linguist, Thomas A. Sebeok. Whether this conference, and the volume *Style in Language*, which it yielded, successfully served the functions of an interdisciplinary symposium remains in the realm of hypothesis. This hypothesis will be tested in the coming years by noting whether any advances may be attributed to the influence of the conference in the discussion of the general problem of style and whether the conference stimulated in any way the fields

of literary criticism, cultural anthropology, linguistics, and psychology.

Style promises to be an important and fruitful concept in the analysis of language, art, and individual and social behavior in general. Sebeok, and his colleagues, Sol Saporta and Edward Stankiewicz, recognized the value of the concept in their proseminar on poetic language at Indiana University and sought to bring the power of a variety of disciplines to explore the problem in its various aspects at a symposium of leading scholars. Sebeok had been the associate editor with Charles E. Osgood of a report of an interdisciplinary seminar, *Psycholinguistics: A Survey of Theory and Research Problems* (Baltimore: Waverly Press, 1954), which today is, undoubtedly, accorded the status of a document basic to its field. Thus the group at Indiana might have hoped that a testable general theory would emerge from their conference and that the report of the conference could be organized with the orderliness one associates with a text-book and the compelling logic one associates with a theoretical work.

The formal closing statements of three of the participants at the conference, George A. Miller, Roman Jakobson, and René Wellek, reveal reservedly positive prognoses as to the value of the conference, while it may be predicted that the general reader will have some marked reservations in respect to structure and readability of the volume. A large proportion of the 22 papers submitted to the conference by the invited participants seem to have issued more from the individual predilections of the scholars than from an interest in the problem of style. Occasionally the relation between the study presented and the problem of style is rather tenuous. Sometimes the papers themselves completely omitted any pretense to define

the theme at hand or to relate their contents to it. Six of the papers presented at the symposium are merely abstracted in the volume because they were published elsewhere. The reader, therefore, is left with a considerable task of guessing at contents of papers referred to in the transcribed discussions, and of perceiving an integrated structure. It is clear, however, from the organization of the papers and discussions and the description of the procedures followed that the chairman labored vigorously to organize the conference and to arrange the papers and transcripts of the discussion into an entity that might be considered a "book."

In *Style in Language* it may be seen that there is little consensus in the definition of the term *style*, although some very good operational definitions with broad applicability are attempted here and there in the text. Joseph H. Greenberg made a comparatively successful attempt at developing the kind of general definition that is needed from the diverse notions of style stated or implied at the conference. In the three pages of transcription from the proceedings which Greenberg contributed to the symposium (pp. 426-428) he tried to describe what the linguist, the psychologist, and the literary critic seemed to understand by the term *style*. Greenberg found that one of the most frequently invoked notions of style was expressed by Roger Brown elsewhere in the volume (pp. 378-385) with an analogy to fingerprints. According to this concept, style may be called a set of defining or invariant characteristics by which we distinguish members of one sub-class from members of other sub-classes. Another definition detected by Greenberg is that style may be seen as deviation from the norm. In this sense it seems to the reviewer that the

"degree of style" an utterance exhibits is the inverse of the "degree of grammaticalness." "Grammaticalness" is a notion suggested elsewhere by Chomsky and discussed at length in Saporta's paper, "Application of Linguistics to the Study of Poetic Language" (pp. 81-93). Greenberg found that since linguists are interested in language, they seek to find stylistic phenomena in samples of linguistic production. Idioblects (characteristic speech patterns of single individuals), dialects (characteristic speech patterns of groups), and literary genres become the objects of concern for linguists who study style. The psychologist, however, may look for definable characteristics with which to measure style in any class of overt behavior. Greenberg guessed that psychologists brought papers dealing with verbal behavior to the symposium merely out of deference to the interests of others present. He may have overlooked the fact, however, that the study of language is coming into vogue among psychologists partially because it yields particularly manageable (that is, quantifiable) data, especially when analyzed according to linguistic categories. According to Greenberg, the literary critic finds certain characteristic phenomena obvious without quantification and therefore formalistic investigations are of little help in the kind of scholarship the literary critic pursues. Since four of the 11 invited papers were contributed by representatives of literary criticism, it is difficult for the reviewer to assess the validity of Greenberg's lone generalization.

If a definition of the term *style* had constituted the point of departure for the conference, a heuristic organizational scheme might have been imposed upon the materials presented. An additional term, *mode*, is necessary, however, to build into the discussion a

distinction that is crucial to an orderly and general formulation of the problem. *Mode* seems to be an ideal term for designating the norms, central tendencies, or invariances of periods and/or places as distinguished from the norms, central tendencies, or invariances of individuals, which we may continue to call *style*. (In the present scheme, both *mode* and *style* are included in the general study of *style*.) The papers in the present volume, and any other studies relevant to the problem of style may be more readily understood if the list of headings offered here is regarded as a delineation of the problem. These headings are:

- a. Taxonomies of behavioral features and dimensions which are subject to the variations or invariance of style or mode;
- b. Studies and ventures in explanation of variations or constancies of individual norms, or styles;
- c. Studies and ventures in explanation of variations or constancies of group norms, or modes;
- d. Studies of relationships among styles and among modes, including studies encompassing more than one class of behavior;
- e. Explanatory ventures or attempts at theories to account for interrelationships among styles or modes in several classes of behavior.

The distinction between mode and style may be illustrated by the first paper in the volume: J. A. Richards' "Poetic Prose and Literary Analysis" (pp. 9-13). The paper introduces the theme of style as a concern of esthetics and suggests that a poem may be analyzed by discussing the process of writing it, which, in turn, directs attention to what is in the poem. Richards form-

with the question: "What, if anything, have its occasion, origin, motivation, its psychological and compositional history to do with the being of a completed poem?" By means of a demonstration of how he wrote one of his own poems, Richards illustrates the role that might be played by the context in which the poem was written, but strongly emphasizes the importance for comprehension of the context *within* the poem. Richards thus discusses mode, omits any consideration of style, and concerns himself with the unique, or non-recurring aspects of the artistic production. He might have retained his concern for the esthetic and nevertheless met the issue of style, if he had phrased his question in the form suggested by the following: "Is it the Elizabethan, the personal style of Shakespeare, or the vocabulary and internal structure of *Hamlet* that is crucial for our understanding?" or "Is it the Baroque new, the Bachness, or the harmonies and structure that are most significant for our comprehension of the *B Minor Mass*?"

In this form, the question reveals some of the inevitable interrelationships among modes, styles, and any single production. Further, we may now come to regard individual style (although it is defined as a central tendency or instance) as a deviation from both the grammar of a mode and from an ideal, or hypothetically constructed, grammar for the entire community. A mode, moreover, may be seen as a deviation from the hypothetical or ideal grammar of the entire community. Finally the structure and contents of any single esthetic production, episode of behavior, or linguistic utterance may be seen as unique events. Perhaps unique events ought not be considered under the heading of style, even if Richards' concern for these have in-

cluded them into the discussion of the present volume.

The distinction between style and mode may also be expressed in the language of statistics, as John R. Carroll did (p. 52) when he referred to the "notion of among group variances and within-group variances." And Charles E. Osgood (p. 193) took cognizance of "overall norms," "situational deviations," and "individual variations," when he defined style as "... an individual's deviations from norms for the situations in which he is encoding, these deviations being the statistical properties of those structural features for which there exists some degree of choice in his code."

A paper by Richard A. Duran ("Oral Styles of American Folk Narrators," (pp. 17-51)) calls attention to the fact that the character of folk literature is largely dependent on the nature of the narrator. He thus implicitly distinguishes between mode and style. But while Duran's delightful and vivid examples afford us with an intuition of the dimensions and features of style which might occur in a folk tale, he fails to present an explicit taxonomy of these features in his paper. Some very single examples are given from some of the folk stories cited. Duran failed to concern himself with still another crucial feature of style, namely that if a trait is designated as *stylistic*, its characterization must be continuous over a series of utterances.

A framework for characterizing modes of linguistic expression and classifying the circumstances under which some of them occur was suggested by L. J. Varela in his paper "Causal and Noncausal Encounters within Limited Structures" (pp. 37-49). The terms "causal" and "noncausal" may be regarded as designating technically between linguistic utterances which occur

in informal and formal situations. Mode, in Voegelin's scheme is divided into "time style," "space style," and genre. Style is called personal style. The need for writing a general grammar to include all kinds of utterances is urged in the paper.

A group of papers which concern themselves with verbal art were contributed by linguists. These papers deal with the dimensions or features along which there may be stylistic or modal variations, but generally do not concern themselves with the distinction between mode and style. These papers include Edward Stankiewicz's "Linguistics and the Study of Poetic Language" (pp. 69-81) and Sol Saporta's "The Application of Linguistics to the Study of Poetic Language" (pp. 82-95) which argue for the applicability of linguistic analysis in the description of stylistic features in literature. Thomas A. Sebeok's "Decoding a Text: Levels and Aspects in a Cheremis Sonnet" (pp. 221-235) which is presented in a section of the book headed "Grammatical Aspects of Style" is an empirical example of the applicability of Stankiewicz's and Saporta's position. Another empirical example of the argument is to be found in Dell H. Hymes' "Phonological Aspects of Style: Some English Sonnets" (pp. 109-131) which has the defect of being a *post hoc* demonstration based on cases selected for the sake of the demonstration.

A section in the volume headed "Metrics" contains papers written by scholars from both the traditions of linguistics and literary criticism. An encyclopedic "Metric Typology" was presented by John Lotz (pp. 135-148) in linguistic terms. The "general theory of metrics" it presents is of a purely technical nature and the typology will need to be tested for its applicability to the study of style. Seymour Chatman's "Compar-

ing Metrical Styles" (pp. 149-172) is an intriguing exercise in establishing the stylistic features which distinguish two English poets, John Donne and Alexander Pope. The variations between them are shown to be constancies of each of them. "On Free Rythms in Modern Poetry" (pp. 173-190) is an effort by Benjamin Hrushkovski to identify the constraints which characterize poetry that has freed itself from traditional norms.

John B. Carroll's contribution: "Vectors of Prose Style" is an attempt to establish a taxonomy of style from a psychological point of view. Judgments made on a sample of literary materials were used to establish the dimensions and to relate them to certain objective or quantifiable features of the prose sampled. In this preliminary exploration Carroll omitted showing whether the dimensions he identified can characterize styles or modes.

The remaining papers of the psychologists add a dimension to the problem of style, since they invoke explanatory and theoretical constructs to account for the existence of any stylistic features. Thus in a paper by Roger Brown and Albert Gilman "The Pronouns of Power and Solidarity" (pp. 253-276) an effort was made to relate the extent of use of familiar and polite forms of address to the political, social, and emotional dispositions of individuals. Charles E. Osgood's study of "Some Effects of Motivation on Style of Encoding" (pp. 293-306) sought to find stylistic differences between real and feigned suicide notes and to attribute them to a standard psychological construct—the motivational state of the organism. The paper of James J. Jenkins, "Commonality of Association as an Indicator of More General Patterns of Verbal Behavior" (pp. 307-329) not only attempts to account for a dimension of style in

verbal behavior by means of a theoretical construct, but also seeks to extend the construct to account for a large variety of behavior. Unfortunately, the use of the construct of "commonality of word associations" as an independent variable contains an implicit circularity, since it emerges from the examinations of a corpus of data as a dependent variable. Jenkins found that many of his hypotheses were unconfirmed and it was necessary to offer a "severe reinterpretation of the construct."

Among the connotations which contributed strongly to our present understanding of the concept is the notion of consistency of the manner, *independent from variations* in matter. Rulon Wells noticed this aspect of style, and his paper, "Nominal and Verbal Style," (pp. 213-220) represents an effort to discover optional or variable features in language which might remain *invariant* in the linguistic expression of individuals or groups. While stylistic features are defined as features which may exhibit variations from central tendencies, there can be no style of an individual or mode of a group unless the stylistic features exhibit *invariance* over a variety of samples of behavior for that individual or group.

With the introduction of the concept of style, a general formulation of the nature of behavior is suggested which transcends most of the concerns of the volume *Style in Language*. This formulation takes note of the fact that human behavior has certain "grammatical" or imperative features (such as drive satisfaction, or ethicality, or social acceptability) which will be common to many members of the species. These features have been the major concern of the behavioral sciences in the past. Furthermore, there are individual variations. While some of these variations are hap-

hazard and uninteresting for the nonce, some of the individual variations remain consistent for each individual throughout large samples of his behavior. These features may be characterized as the manner of the individual or his style. When aggregates of people in a given period or place exhibit invariances of variable features, these features are designated as *modes*.

The concept of style makes it possible to bring idiosyncracy under scientific examination. Given the present formulation, idiosyncracy ceases to be random variation and may be designated as invariance in certain variable features, that is, as *style*. In psychology and education, investigations of "cognitive styles" and "behavioral styles" are currently increasing in number. The appearance of the volume *Style in Language* may well constitute a part of a trend.

Style in Language fails to be a book with a unified structure, argument, or reasonably defined point of departure. It makes poor reading. Yet the problem of style, to which it is addressed, is extremely important in the analysis of behavior. Furthermore, the study of style through the data of language is an extremely efficient approach for the study of behavior. It is to be hoped, therefore, that despite its shortcomings the book will attract enough attention in academic circles to exert some influence and to serve the hypothetical functions of interdisciplinary symposia. Instructors of the increasingly frequent courses in "psycholinguistics" might consider the book or parts of it for readings in these courses. The data and theory subsumed in the volume are clearly "psycholinguistic."

AARON S. CARTON
New York University

**RESEARCH ON LANGUAGE TEACHING, AN
ANNOTATED INTERNATIONAL BIBLIOGRA-
PHY FOR 1945-61.**

Howard Lee Nostrand, Sol Saporta, Judith Ann Milligan, Janet Hartwich Miller, John Alden Green, Doris Margaret Glasser, David William Foster, and Beverly J. Payne.
University of Washington Press, Seattle, 1962. xix + 280 pp. \$5.00.

To those engaged in it, the preparation of a bibliography must seem a tedious and thankless task. It is pleasant for me, therefore, to have this opportunity of accordin public recognition of the devotion shown by the authors of the reference work with which this notice is concerned. Working under a contract with the United States Office of Education, they had two purposes: first, to list and annotate all research reports they could locate in areas pertinent to the improvement of language teaching which had been completed since 1945 or which were in progress as of October 1961; and second, to identify and comment on the problems most in need of further research. A concerted effort was made to make the coverage world-wide, but it became evident that most of what research could be found had been done in the United States. Nevertheless, the authors admit that their bibliography is "probably still far from complete even for the West," and they believe that for the Communist countries it "lacks many items of major importance, particularly in linguistics and psychology as they bear upon language teaching." They also comment that "in this field of research, published sources do not suffice for bibliographic control," inasmuch as research workers are increasingly prone to exchange information with each other by privately circulated reports.

Despite their many difficulties in locating material, the authors have turned out a bibliography which will be useful in many ways. It includes listings of other bibliographies and surveys, of periodicals and serials, and of agencies, institutions, and organizations. The annotations of the entries will be especially valuable. The user should be cautioned, however, that the citations are not always complete or accurate.

As the authors say, ". . . the most impressive result of the present study is to confirm that a great number of areas lack conclusions based upon research." In this they are undoubtedly correct. Modern language teaching has recently gone through a revolution in objectives and methodology, but even though this revolution is intuitively laudable, one would like to have a more solid research basis for it than exists in fact. The appearance of this bibliography is likely to be an encouragement, as well as a positive help, to the increasing number of foreign language teachers and educational psychologists who are taking an interest in research in the modern language field.

JOHN B. CARROLL
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LET'S READ.

Leonard Bloomfield and Clarence L. Barnhart.
Wayne State University Press, Detroit, 1961. 465 pp. \$7.50.

This book includes the original version of Bloomfield's essay outlining his system of reading instruction, and an enlarged version of the materials he developed for such instruction. There are also a series of five articles, by Barnhart and others, relating to the background and use of the materials.

Since the appearance of the Bloomfield proposals in the *Elementary English Review* in 1942, the claim has often been made that unless all these proposals are followed, reading instruction will not be linguistically sound. In the present work, Barnhart refers to Bloomfield's as a "linguistic system," (p. 9) while Pooley states the method is "revolutionary in theory . . . not a minor modification of currently used methods . . . [and will] require the understanding and acceptance of linguistic theory . . . [and training in] entirely new concepts and procedures." (p. 7)

What are these revolutionary proposals? In effect they encompass the use of:

1. Linguistically correct phonic principles.
2. A specific sequence of instruction.
3. A specific type of materials to develop this sequence.

With respect to the first of these categories, Bloomfield (unlike Pooley) suggests that "a profound knowledge of phonetics [is not needed]. . . . In fact, the teacher who reads over the list in this book will soon grasp . . . all the phonetics needed for ordinary instruction in reading." (p. 30) To the extent of this use *these* principles will ensure the linguistic accuracy of *any* method of reading instruction.

Turning next to the sequence recommended by Bloomfield, this may be summarized in his own words: First: "Train the child to respond vocally to the sight of letters . . . by presenting regular spellings." (p. 29-30) Second: "Train him to make exceptional responses to irregular spellings . . . by presenting systematically the various types of irregular spellings." (p. 30) This sequence of instruction also requires special materials which "distinguish . . .

between regular . . . and irregular spellings [and] . . . classify the irregular spellings according to the various types of deviations from the alphabetic principle." (p. 29)

What this all reduces to is, essentially, control of the vocabulary used in early reading instruction according to phonic principles rather than frequency of use. The choice between the sequence recommended by Bloomfield and more traditional procedures is, however, dictated more by psychological and pedagogical, than by linguistic, considerations. One can certainly teach linguistically correct phonics without following the Bloomfield sequence. The same is true of the materials offered for the development of this sequence.

The proposed materials, further developed by Barnhart, constitute by far the largest part of this volume. Bloomfield's essay also presents a rationale for their use. He says, "The first step [in reading instruction] which may be divorced from all subsequent ones, is the recognition of the letters . . . of the alphabet as signs which direct us to produce the signs of our language . . . [and] the practical and cultural values of reading can play no part in the elementary stages." (p. 35) However, the "method" of perception by which a child "translates" a sequence of graphemes into a familiar sequence of phonemes (or words), and the relation of context to such perception, is again more a problem for psychology, or at most psycho-linguistics, than for linguistics alone. In any case, there is certainly not enough known about this process as yet to warrant a categorical statement that Bloomfield's proposals at this level have a theoretically sound basis.

With regard to the materials themselves, mention should first be made of the fact that the descriptions of the

teaching of isolated letter phonics and sight words which Bloomfield attributes to current reading instruction do not do justice to present methods. In like fashion, the repetitious and almost meaningless material developed and advocated by Bloomfield and Barnhart hardly does justice to the possibilities of the sequence they recommend. The sequence, on the contrary, appears quite harmonious with the current trends in programmed instruction and has been applied with some success (but certainly more appeal) in such work as that of Daniels and Diack. This suggests that Bloomfield's basic principles can probably be developed in a meaningful and tasteful context, with no loss (and possibly, a gain), in efficiency.

It is important, therefore, to recognize that the specific sequence and materials for teaching linguistically correct phonics which has been developed in *Let's Read* represent the views of one linguist, but the fact that the phonics is linguistically correct does not vouch for the method or materials by which it is taught.

JOEL S. WEINBERG
Harvard University

THE GROWTH OF BASIC MATHEMATICAL AND SCIENTIFIC CONCEPTS IN CHILDREN.
K. Lovell.
Philosophical Library, New York, 1961.
154 pp. \$7.50.

K. Lovell, Lecturer in Educational Psychology in the University of Leeds Institute of Education, has been engaged for some five years in an extensive series of followup studies of the work of Piaget and Inhelder. He has reported his research in at least 8 articles in professional journals. Now in a book, his first, Lovell undertakes to in-

terpret this research for teachers and to explain for them the rationale of various approaches to mathematics education in the lower grades.

Few teachers in this country, if not in England, are likely to comprehend this book fully on their own, much less exploit its classroom implications. There is thus a touch of irony in Professor Inhelder's Foreword, in which she comments:

Most French works of this kind go no further than a rather superficial popularization. Dr. Lovell has, on the contrary, a very different idea of the function of school teachers. He expects of them not only a knowledge of the subjects to be taught but also an understanding both of their psychological structure and of the way in which scientific ideas, beginning as spontaneous operations, are elaborated in the pupils' minds. (p. 5)

Perhaps Lovell does not actually expect this of his readers when they first complete the book, and he certainly does not mean to expect it of them beforehand. The book may indeed be most useful to teachers and education students because it suggests problems to them for systematic study and research. At the same time, the book does not formulate with sufficient clarity the issues that teachers should explore and it does not provide precise clinical and procedural guidelines to enable them to interpret children's behavior from the Geneva standpoint. Still, the book is well calculated to interest teachers and to impress upon them the general relevance of the Geneva school of thought to the classroom. In writing this book, Lovell may have felt constrained to avoid overwhelming his readers with too many theoretical sub-

tleties or empirical details. Though teachers must eventually demand more of both, the book is still as rich a course on children's concepts as has yet been served to them.

The first chapter is unhappily the weakest. It juxtaposes various notions of concept formation without attempting to develop the crucial relationship between the idea of reversibility and the more familiar ideas of discrimination and generalization. In Lovell's words, "The fundamental skill that underlies all mathematical and logical (internally consistent) thinking is the capacity for 'reversibility'; i.e. the permanent possibility of returning in thought to one's starting point." (p. 18) In order to understand why one does not achieve reversibility for all concepts simultaneously it is necessary to realize that, in Piaget's view, the reversibility of a given concept depends upon one's having differentiated it from others. The concept must have "permanence," by which Piaget means that one must have achieved a stable idea of its defining properties. If this could be related to discrimination studies we would be in a better position to appreciate, among other things, Lovell's own finding that the child's concepts of conservation of substance and weight are at first applicable only in highly specific situations. Lovell does not relate to this his brief discussion of the "traditional view" of concept formation. One of the problems that the idea of reversibility may help resolve is that most discrimination-generalization models have not been designed to handle variable properties as the definenda of a class or concept. As Cassirer pointed out, a scientific or mathematical concept is not simply based on abstraction of the unchanging properties of entities or events, but rather on regularities of changing properties. "What

holds together the various structures which we regard as examples of one and the same concept is not the unity of a generic image but the unity of a rule of change. . . ."¹ When Lovell speaks of the child's arriving at "the concept of invariance of weight" or "invariance of substance" with respect to conservation problems, it makes a considerable difference what model of concept formation one employs to interpret this.

Chapters 2, 3, and 4 are addressed respectively to the logical basis of mathematics, perceptual approaches to number concepts, and activity approaches. The latter two provide an excellent characterization of the major features of the materials of Stern, Cuisenaire, and Dienes, provided (as Lovell intends) that the reader explores further these and other approaches the book discusses. It is to be regretted that the reader is likely to miss in Chapter 4 the significance of Piaget's attack on what may be for teachers the most perplexing issue between the traditional and new approaches to mathematics, the relationship of mathematical thought to reality and the world of experience. Dewey observed 25 years ago that "the interpretation of the logical conditions of mathematical conceptions and relations must be such as to account for the form of discourse which is essentially free from the necessity of existential reference while at the same time it preserves the possibility of indefinitely extensive existential reference. . . ."² Because Lovell's discussion in Chapter 2 of the discrepancy between the Poincaré and the Russell and Whitehead views falls short of formulating this problem, his subsequent discussion of

¹ Cassirer, Ernst, *The Philosophy of Symbolic Forms*, Vol. III (New Haven, Conn.: Yale University Press, 1957), p. 291.

² Dewey, John, *Logic* (New York: Holt and Co., 1938), p. 394.

Piaget's position seems to miss the target (even though Lovell emphasizes the operationalism of the Geneva school.) Piaget's fundamental contribution to education is summed up in this statement from *The Growth of Logical Thinking*: "The two processes—structural development and everyday application—both belong to the same reality, and it is because formal thinking plays a fundamental role from the functional standpoint that it can attain its general and logical structure."⁸ (This statement applies in the first instance to the logical thinking of Stage III, but it equally characterizes Piaget's approach to the stage of concrete operations.) Lovell almost makes the point on numerable occasions throughout his book, but the reader may not see the forest for the trees. The author states in Chapter 4, for example, "The concepts and ability to manoeuvre them in the mind, he considers, are built up from using concrete material, but are independent of the actual materials used." (p. 44)

Chapters 5 through 10, on the concepts of substance, weight, time, space, length and measurement, and area and volume come much closer to fulfilling the author's avowed purposes. As this reviewer has already observed, they would be more powerful if the theoretical rationale had been laid out more clearly in the earlier chapters. They would also be strengthened by a chapter dealing with the beauties and hazards of the clinical technique of the Geneva school, the general problems of sitting across a table from a child and trying to elicit his responses without unduly restricting or influencing them. Nevertheless, an adventurous teacher might make considerable headway with these chapters by reconstructing some

of the experiments for himself, especially if he consulted the original reports of Lovell's research which are cited in the chapter bibliographies.

In examining Piaget's and Inhelder's work on the child's concepts Lovell has made a substantial contribution of his own. Where the Geneva investigators have been vague in describing their procedures, Lovell has standardized these procedures and devised new ones. He has specified more carefully the criteria for classifying responses at various stages of conceptual development, notably in his followup of *The Growth of Logical Thinking* (which is not examined in the present book). Lovell's experiments have involved more subjects than the Geneva research, and the subjects' intelligence, schooling, and social background have been more rigorously controlled. Lovell has worked closely in this research with teachers and education students and finally he is conversant with other areas of psychological investigation that need to be related to the work of the Geneva school, such as the research of Goldstein, Luchins and others on abstract and concrete behavior. Not all of this, to be sure, comes across in the present book nor even in his articles in the professional journals. The articles, however, invite the persistent inquirer to write to Lovell himself at Leeds for procedural details not reported in print.

In each of the chapters on substance, weight, etc. the author describes some of the pertinent experiments, and sketches the progress of the child through the several stages of the growth of a concrete operational concept. In each chapter Lovell confirms the main burden of Piaget's argument, but states some cogent qualifications to which Inhelder accedes in her Preface. The au-

⁸ Inhelder, Barbel and Jean Piaget, *The Growth of Logical Thinking* (New York: Basic Books, 1958), p. 342.

thor's classroom recommendations (e.g. ". . . the viewing and drawing of objects from different angles; folding and unfolding surfaces; cutting through objects to expose various sections; enlarging and reducing figures; rotating figures. These actions help to develop projective concepts" (p. 102) fall somewhat flat for this reviewer because he is convinced that the most appropriate applications of the Geneva work can only follow from the teacher's comprehension of the underlying theory. But Lovell would not disagree, and a teacher might profit at least as much as the children by exploring some of these activities with them.

A purely (but not pure) mathematical chapter on the number system seems anomalous in this book, but we shall take the author at his word that it is good medicine for his clientele.

Despite the weaknesses that have been cited here, this reviewer was still learning from Lovell the third time through and heartily commends this book to both the oldtimers and newcomers to the Geneva school.

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TEACHING ENGLISH IN HIGH SCHOOL.
Abraham Bernstein.
Random House, New York, 1961.
470 pp. \$5.95.

The reading audience for methods books is comprised largely of teachers who are looking for a solution to some practical problem. Few methods books deal usefully with specific classroom problems. Most counsel teachers to "increase appreciation," "raise taste," and "improve students' power to communicate." So, however invalid the advice in these books, no one need worry about the effect. Teachers may become ex-

cited about the glittering generalities, but they will make no changes. These books forget to tell how.

When, however, a methods book proposes to show how teaching method "emerges" from content, when its major concern is motivation, and when it continually suggests this and that concrete solution to classroom problems—and *Teaching English in High School* does all these things—then not only will teachers respond enthusiastically to the book, they can and likely will begin following its dicta tomorrow morning. And most will do so without questioning whether or not they should.

Mr. Bernstein's book has a most significant purpose: to show how teaching method emerges from content. This purpose would seem to oblige the author to present a theory of the content—a view of the nature, the functions, and the values of literature and of composition—to serve as a basis for his judgments on which methods emerge from the content and for his suggestions on how to teach literature and composition by these valid methods. But Mr. Bernstein neither expresses nor implies any genuine position on the nature of literature or the nature of composition. Without a definition of the nature of the content as a point of reference, how can one tell whether certain methods help content to function or hinder its functioning, whether a device distorts the nature of the subject matter or not, whether a manner of teaching works against the students' ever enjoying the values of studying the subject?

Not only does the book fail to show how method emerges from content, it repeatedly proposes three methods for teaching literature that are to this reviewer irreconcilable with the nature of literature. The first is a type of question that invites the student to discuss works of literature as if they were reproduc-

tions of life, rather than representations of life. For example, such questions as:

If you were lost in the woods, what could you learn from Odysseus, washed ashore at Scheria, naked and helpless (shortly before he encounters Nausicaa), without food, weapons, or clothing? What would you do to survive? How would you plan? How would you analyze your situation and resources? (p. 158) You may want to compare both scenes [the opening of *Mid-Summer Night's Dream* and Brabantio's protesting Othello's wooing of Desdemona in *Othello*] and then discuss how society must be considered when the purely personal, like courtship and marriage, is contemplated. Should society have something to say about such personal matters? Or is it none of society's business? (p. 208)

What would the Squire have done if Godfrey had told his father about his marriage? What would you have done? (p. 165)

[On the opening lines of *A Tale of Two Cities*] When do opinions justify revolution, war, and killing? (p. 166)

Questions that suggest that a work of literature is a literal copy of life, rather than something organized and arranged by a writer, hinder students from developing the proper attitude for reading works. Furthermore, such questions keep students from learning how to read literature so as to re-create the experience of the work. Re-creation demands that a reader move into the work, not away from it, that he refrain from making judgments on the rightness or wrongness of the conduct represented in the work, or from offering other alternatives to the behavior por-

trayed, or from discussing its social effects in the everyday world he lives in. Questions that invite readers to mistake literature for life in this way, or that urge them to create rather than re-create, do not "emerge" from the content.

The second of the invalid methods for teaching literature suggested in *Teaching English in High School* is a mode of questioning that, according to the author, "drives students to one alternative or another, with no possible compromise in between, questions [e.g. "Who was more honorable, Cassius or Brutus?" (p. 347)] that exact a polarizing effect on the class, that present two sides, only one of which you can take." (p. 345-6) If this type of question is used to accomplish what Mr. Bernstein describes in the preceding quote, then it works against a student's experiencing what a work of literature tries to make him experience—the amazing intricacy of human events, where opposites are often interwoven inextricably.

"Good" questions help a reader feel his way through every facet of a work. They do not force him to "take a side," to pigeonhole and categorize, as those on pages 346-51 do. "Good" questions provoke the reader to "see all," to notice, for instance, that characters have many tones of voice and unresolved oppositions within themselves, that parts of works play now with, now against, one another or play both ways at once, and that words are used simultaneously in their several meanings. Questions that suggest that things are either one thing or another are hardly conducive to the reader's "seeing all." And it is only when a reader "sees all" that he realizes the inadequacy of simple judgments and black-white distinctions, and this realization is one of the moral values of reading literature.

The exercises suggested in this book for the study of various works of literature concentrate almost exclusively on the paraphrasable elements of works: on plot summaries, morals, themes, and generalizations about characters. This, last of the non-literary modes for teaching literature recommended by the author, is used even in the study of poems. Even here, the focus is clearly on the subject matter or message. Poems are paired or grouped by themes with no regard for the varying quality of the poems in the group or for the demands that reading each would make upon the students. Mr. Bernstein claims that thematic grouping stimulates arguments about the messages of the poems. What matter that it creates such strange bedfellows as "Ozymandias," "The Deacon's Masterpiece," and "You, Andrew Marvell." (p. 232)

The purpose of close reading, Mr. Bernstein says, is "to extract the juice"; in other words, to separate the content from the form. In the chapters on the teaching of literature, there is no recognition that language in literature is medium, not means, and that the reader cannot experience what is said unless he can respond properly to how the thing is said. Valid methods for teaching literature would encourage readers to develop sensitive responses to the ways words are used in works of literature. The experiencing of works depends upon such responses, and the enjoyment of the values of reading works depends upon experiencing the works. The three methods of teaching literature that are continually suggested in *Teaching English in High School* do not "emerge" from literature, nor will using them lead students to experience literary works.

Not only can we challenge the validity of the methods proposed in this book, but we can also question the

value of them as means to genuine motivation. Grouped roughly, the methods suggested motivate in three ways: by exciting students and holding them in suspense, by continually connecting the material being studied with the students' current experience, and by spurring the students to "battle it out." According to the examples given, the author recommends using methods to produce these effects in order to involve students at the opening of a lesson or to stimulate them when the lesson lags. The methods are essentially initial or emergency techniques.

Methods of this sort—even if they were wholly valid—do not help teachers much in solving the key problem in motivation: the finding of ways to convert students' extrinsic interest into an involvement in the subject matter itself *on its own terms*. Many teachers can arouse threshold interest—interest in what happens in a story, in the characters, or interest in a good argument (the interests that Mr. Bernstein's methods might excite)—and they can do this by entirely valid means. What they really need to know is how to convert these immediate interests into engagement in the works as works of literature. They want to know how to move students *inside* the work so that they will undergo the intense, ordering experience of the whole work. What they need to be shown then, is not how to open a number of different lessons, but rather how to bring about the transition from the initial, extrinsic interest to a genuine engagement and then how to program the subject matter so that it excites and rewards students on its own terms.

None of the means to motivation this book offers illustrates this difficult transition. Mr. Bernstein suggests, for instance, many sets of motivational ques-

tions on various Shakespearian plays. But the same type of question—mostly psychological—and the same level of question is repeated throughout. The teacher gets no clues as to how to move students forward safely, surely, and steadily towards a rich and satisfying reading of a work of dramatic art.

All motivational devices—including those of the initial and emergency sort—are teaching methods. As teaching methods, they must arise from or at least reconcile with the subject matter, else while they are exciting students, they may be encouraging misconceptions about the subject matter and creating new barriers. Motivational methods are restricted by the nature of the content, as all other methods are—a salient fact frequently overlooked in this book.

The purpose of *Teaching English in High School* and the emphasis on motivation both seem to virtually oblige the author to offer the reader a lesson plan, sample assignments, and a framework for a unit. Such a set of models could show precisely how content affects methods in each of these three important teaching contexts.

The reader needs at least one full-dress lesson plan, complete with aim, the questions or other teaching techniques for the entire lesson, and the assignment so that he can see the relation of content to method at every point in a lesson: at the opening, as the teacher moves the lesson forward to and through transitions, and at the close. Neither the fragments of lessons the author cites nor his abstract suggestions about lesson planning (Ch. 14) exemplify this kind of progression.

Since assignments are methods of teaching, content affects them too. So the reader wants examples of the many types—daily and long-range, reading and writing—that the teaching of Eng-

lish entails, and he wants a rationale for the examples in terms of the thesis of this book. Yet he hears almost nothing about assignments, except those in free reading (pp. 141-5) and in grammar (pp. 33, 34).

In addition to the lesson plan and assignments, the reader expects to be shown a well-developed plan for a unit on some one topic: on a certain novel, on short stories, or poems, on composition, on literature and writing, or grammar and writing. Several times (pp. 84, 146, 246-50) it seems as if an example of some sort of unit is forthcoming. But in this as in other matters, Mr. Bernstein stops short of carrying things much beyond the initial stages. This is more regrettable in this instance. For only a full-scale unit plan can exemplify, first, how a general aim is particularized into partial aims; secondly, how each of these related partial aims affects choices of content; how both aim and content suggest and limit methods of teaching; and finally, what kinds of evaluation would reliably and validly show in how far the outcomes were achieved by teaching this content by these methods. Furthermore, only a unit plan can make the often involved relationship of content to method unmistakably clear, because only it would show how *general* methods appropriate to the study of, for instance, any novel, and the *special* methods suggested by the style of a particular novel (for example, Faulkner's *The Bear*), and the peculiar methods proper to a certain part (for example, part 4) are all harmonized in teaching plans.

Now, finally, a comment on the attitude of the book. The author's statements frequently lack precision, clearness, and due qualification. Mr. Bernstein arrives at extravagant conclusions. If a teacher does not use popular songs to teach grammar, he is a "snob" (p.

84) or "ashamed" of using them (p. 50). And on page 13 without any prior argument, the author says, "Solid English content is therefore irreplaceable in the curriculum. Nobody in his right mind will deny it." On page 76: "Diagraming a sentence widens our perceptions of language; therefore diagraming should be taught." And on page 56, without any defense at all, Mr. Bernstein makes such a causal connection as:

Hence, when you face a student of average intelligence who in actual speech differentiates names and actions but cannot tell a noun from a verb, put the responsibility where it truly belongs—not on an inability to differentiate but on a reluctance to push toward inner understanding.

Furthermore, the author does much for dramatic effect. He freely answers complex questions in a single word (pp. 13, 16). And he often enlivens the text by analogies and examples that are not pertinent to the point being considered (pp. 83, 94, 128-9, 150, 153, 251). Startling but ludicrous connections are made between student interest and works of literature (pp. 33-34). And although the nineteen Case Studies are as engaging as all dramatized instances are, like most case studies, some are typical, some unique. New teachers, who catch at straws, may mistakenly take them all as illustrations of what *usually* happens or of what they *ought* to do.

This continuous sacrifice of the exact to the startling in *Teaching English in High School* is most regrettable, because it obscures the many useful suggestions Mr. Bernstein makes. He alerts the teacher to the importance of context in teaching grammar (pp. 51-3),

to the distinction between grammar and usage (pp. 63-9), and to the relationship between punctuation and meaning (pp. 71-4). His remarks on spelling (pp. 78-81), on modifiers (pp. 53-4), and on sentence sense (pp. 58-62) are helpful indeed. His warning about mere spontaneity in writing, his suggestion on how to limit topics (pp. 83-4) and on outer-inner observation (p. 84), and his counsels on the salutary effect of feedback in composition (pp. 115-6) are of real value. And when we see his fine work in taking a play off the printed page, both by "stage direction" and by the questioning that urges students to see and hear the play (pp. 219-20), we regret that he did not concentrate more on the voices and the dramatic qualities in literary works of all genres. Finally, the annotation of the bibliographies that appear throughout the book greatly facilitates choice of supplementary reading.

This book will be widely read. Glib, vital, chatty, anecdotal, it sweeps an amused reader along—quite unquestioningly. Definite, directive, and generally "blanket" in its pronouncements, the book may be followed without wariness or challenge by the teachers it relieves and reassures.

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EDUCATION, ECONOMY, AND SOCIETY: A READER IN THE SOCIOLOGY OF EDUCATION.

Edited by A. H. Halsey, Jean Floud, and C. Arnold Anderson.
The Free Press of Glencoe, Inc., New York, 1961. ix + 625 pp. \$7.50.

This collection of papers should prove a valuable addition to the library of

both the educator and the sociologist. Its contribution lies in bringing together under one cover a number of studies, some of which are excellent, in the sociology of education. The anthology does not, however, offer any new synthesis of existing literature or extensive commentary on it. The volume is organized under six major topics: 1) The Consequences of Economic Changes (concerned primarily with the impact of industrialization on education and of education on industrialization); 2) Education, Social Mobility, and the Labor Market (containing, among other things, cross-national comparisons of social mobility); 3) The Selection Process in Education (mainly concerned with social class and intelligence as factors influencing the composition of student bodies); 4) Social Factors in Educational Achievement (dealing primarily, though not exclusively, with the influence of the family on students' school achievement); 5) The Changing Social Functions of Schools and Universities (containing a somewhat mixed bag of articles but concerned mostly with the relationship between schools and the occupational world); and 6) Teachers in Schools and Universities (dealing largely with recruitment and role definition).

In addition to making a number of first-rate studies conveniently available (e.g., Turner, "Sponsored and Contest Mobility"; Strodtbeck, "Family Integration, Values, and Achievement"; Parsons, "The School Class as a Social System"; and Baron and Tropp, "Teachers in England and America"), the book makes two important contributions. First, in several historical papers, it deals with the effects of education on industrial development and the impact of this development on educational institutions. Most noteworthy are studies which discuss the place of

education in supporting economic growth, the expansion of educational opportunity and the role of government in bringing it about, and the changes in universities that reflect and contribute to advances in technology and the growth of professions. The historical emphasis in a considerable portion of this book is welcome since so much of the American literature in the sociology of education tends to be ahistorical in nature. Second, the book treats in comparative perspective the areas of social mobility, educational selection, and the teaching role by examining them across industrial (and some relatively non-industrial) societies. Although most of the comparative papers concern the United States and Great Britain, others deal with Continental and Latin American countries. Unfortunately, the editors have not chosen to codify or synthesize this material as have other writers on comparative institutions.

The main difficulties with this collection lie in two areas. First, the thesis, or unifying theme, as expressed in the title and amplified in the editors' Introduction, is inadequately defended. The editors state that: "In modern society, the major link of education to social structure is through the economy and this is a linkage of both stimulus and response" (p. 12). Without questioning the importance of this link, there is no demonstrated reason to call it the major one especially since the editors do not spell out what they mean by "economy." Moreover, a number of papers included in the volume, especially the few dealing with the structure of school organization and the impact of the family on achievement, do not bear out the editors' contention. One can analyze educational institutions from many perspectives. As this

book illustrates, an economic perspective with primary stress on social stratification and industrialization is fruitful. Nevertheless, others can be assumed to be equally important unless they are shown to be unproductive for empirical investigation or public policy.

Second, there is the matter of selection of articles. In this "Reader in the Sociology of Education" (the subtitle) designed "to illustrate and discuss the modern interrelationship of economy, society, and education" (p. 1), close to half the papers are concerned in one way or another with phenomena related to social stratification. This selection would have been more appropriate had the editors developed their main theme into a central thesis and then made a much stronger brief for it either in an extended introductory essay or in running commentary. (As it stands, the Introduction states their case all too briefly and then turns to a summarization of the table of contents.) Had the editors included articles that argued the merits and demerits of the various aspects of their thesis, the book's scope would have been narrowed somewhat but its organization would have become more unified and cohesive. With the purpose stated broadly but without a fully developed rationale for the inclusion of contributions, the book does not quite come off as a reader in the sociology of education because any number of additional topics might well have been presented. Among those conspicuously absent are discussions of professionalism, the structure of schools and school systems, the occupational associations of school personnel, and the influence of national cultures on educational institutions, all of which lend themselves both to historical and comparative treatment. However, the personal preferences of a reviewer as

to content and organization should not conceal the value of a basically good book.

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PHILOSOPHY OF EDUCATION.

Edited by H. W. Burns and
C. J. Brauner.

Ronald Press Co., New York, 1962. 442
pp. \$6.00.

This is yet another book of 'Readings.' It is constructed on the dubious assumption that beginners in the philosophy of education can be adequately introduced to the subject by being provided with snippets ranging from pronouncements of Pope Pius XI to the streamlined subtleties of A. J. Ayer or Israel Scheffler. It is true that the editors provide very skilful and clear 'Overviews' to enable the student to keep his bearings in the various sections. Indeed there is an awful lot about maps, charts, and view-points in this book, which brings to mind Bacon's comment that the discourse of the philosophers is like the stars which shed little light because they are so high. What is required in the philosophy of education is surely good honest spade-work, not high-level map-making.

Philosophy, of course, is necessarily abstract in that it is concerned with second-order questions about the meaning and inter-relation of concepts, with the presuppositions and justification of different sorts of statements, and with the validity of types of argument. But what is distinctive about the philosophy of education (compare the philosophy of law or of politics) is the concrete exemplification in a specific field of more general problems of analysis

and justification which belong mainly to ethics, social philosophy, epistemology, and the philosophy of mind. John Dewey surely showed pretty well what regions of philosophy are relevant to education. The only trouble was that he was mistaken in most of his contentions—that is when they were clearly enough expressed to be refutable. He thus succeeded both in setting up the subject and in more or less killing it stone-dead for a generation of more academically minded philosophers. This book of Readings does little to revivify the subject or to usher in "an era of renewed vigor and excellence" as Robert Beck claims for it in his Foreword. For in the first three Parts of the book, which are clearly mapped and sign-posted by the Overviews, the reader hardly gets a foothold in the Serbonian bog of educational concepts and policies. In the last part, on the other hand, where theory is related to practice, the reader is firmly planted in the bog all right; but the philosophical spadework is too haphazard to establish any solid or enduring path-ways.

To be pre-occupied with what philosophy is, is normal amongst philosophers, though it can become almost an occupational disease. Philosophers of education are therefore not likely to escape it. So the first Part deals with The Nature of Educational Philosophy. This includes an outstanding article by Kingsley Price called "What is a Philosophy of Education?" This is a model of clear and pungent philosophical writing. In content, perhaps, it dates a bit. The view of metaphysics outlined is that of the positivistic period in analytical philosophy: Moore's questions "What do we mean by 'good'?" and "What things are good?" loom very large in the treatment of ethics. But

this article has the great philosophical merit of being so clear that it is immediately evident at what points it is open to attack.

The second Part of the book almost ignores education altogether. It gives samples of metaphysics, epistemology, and ethics drawn with fine impartiality from different schools of philosophy. A. J. Ayer's neat and sophisticated urbanities on "Philosophy and Knowledge" and C. L. Stevenson's brash banalities on "The Nature of Ethical Disagreement" rub shoulders with John Dewey's forceful fallacies in his "Instrumental Theory of Knowledge" and "Theory of Valuation" and with Idealist musings by J. D. Butler on "The Role of Value Theory in Education." There are also samples of metaphysics and of neo-Thomist epistemology. Presumably the point of this section is to show the student by samples what sort of thing goes on in the main fields of philosophy that touch upon education. But how much does the student really learn about philosophy in this way? About as much, I suppose, as a tourist learns of a place that he visits with a guide-book in his hand. Maps, as I have remarked, have a fascination for the editors of these Readings.

Part III deals explicitly with different Philosophies of Education, with Idealism, Classical Realism, Pragmatism, Reconstructionism, Existentialism, Christianity (as represented by Pope Pius XI), and Analytical Philosophy. In each of these, well-known representatives of particular philosophical positions (such as Broudy, Brameld, Neff, Scheffler) attempt to sketch the "implications" for education of their differing philosophical stand-points. The essays, as a whole, are competent and interesting. This Part will prove very useful to students who wish to get their bearings when confronted

with views about education voiced by philosophers of differing persuasions.

Part IV, which is headed From Theory to Practice, tackles some of the detailed issues with which the philosophy of education should be specifically concerned. B. P. Kromisar, for instance, in his article on "Should We Meet the Needs of Students?" sets to work on the concept of "need." One may not altogether accept his analysis of the concept of "need"—for instance, his handling of the motivational concept of "need" and his attempt to separate it completely from what he calls "the prescriptive concept of need." But this essay is a splendid sample of the sort of thing that is so badly needed in the philosophy of education—rigorous and clear handling of the concepts employed by educators. On policy questions F. N. Kerlinger's hard-hitting article on "The Implications of the Permissiveness Doctrine in American Education" is most memorable. But it could be strengthened by a more rigorous analysis of concepts such as "freedom" and "authority" such as are to be found in social philosophy at its best. Similarly another vigorous article by H. W. Burns on "The Merit Plan: Boon or Bane" would have been strengthened by a more general philosophical awareness of the wider issues of justice and merit. What is lacking in this section is any competent handling of the issues of justification which educational policies raise. It is true that D. B. Gowin's "Value Theories and the Evaluation of Education" sets out some of the problems in a descriptive manner. But there is little awareness of the basic issues of the ethics of education—for instance, that raised by Plato, Mill, and Moore, concerned with the justification of "the higher pleasures" into which it is the business of the educator to initiate a new generation. Indeed one may say

that ethics, social philosophy, and the philosophy of mind, which are the most relevant of all the branches of philosophy to problems of education, get a pretty thin or crude showing in the volume as a whole.

The editors may well reply that their volume reflects very well the present state of the philosophy of education. There is, on the one hand, a lot of rather abstract chat about what the philosophy of education is and how philosophy might have "implications" for education. On the other hand there are some hard-hitting and stimulating contributions to educational policy. There are very few examples of concrete educational issues illuminated by the second-order searchlight of philosophy. If this diagnosis is correct the editors are to be congratulated on revealing in such a clear and neat way the inadequacies of the subject at the present time. They are, of course, very concerned to demonstrate to pure philosophers that the philosophy of education is intellectually respectable. But maps have the disadvantage of being as useful to enemies as they are to friends. Academic philosophers will never be convinced by talk about the philosophy of education. They demand examples of it. As I have said before, the map must make way for the spade.

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THE TEACHING OF SCIENCE.

Joseph J. Schwab and
Paul F. Brandwein.
*Harvard University Press, Cambridge,
1962. 152 pp. \$3.25.*

This volume consists of the two essays which formed the substance of the Inglis and Burton lectures delivered at

Harvard University in the academic year 1960-61: *The Teaching of Science as Enquiry* by Joseph J. Schwab and *Elements in a Strategy for Teaching Science in the Elementary School* by Paul F. Brandwein. Both essays stress the current need for the development of mature insights into the scientific enterprise and the concomitant need for the re-vitalization, reorientation, and reorganization of the present science curriculum.

In the first essay, Mr. Schwab traces the origin of the recent curriculum development efforts to the need to maintain and support the burgeoning human endeavor of scientific enquiry. The author asserts that the relevance of the science curriculum to the scientific enterprise has become dangerously attenuated: instruction continues to provide a doctrinal education in the sciences rather than an education which molds and develops the reflective intellect. He maintains that if students are to view science in terms of its essence, existing groups of facts and ideas must be treated as principles of enquiry—conceptual structures—whose central purpose is to guide enquiry rather than to serve merely as the “static” products of scientific investigation.

Enquiry is envisioned by Mr. Schwab as consisting of two distinct modes: stable and fluid. Stable enquiry is typified by efforts to work within current principles—to fill in the “blanks” in existing knowledge; the principles serving as guides to enquiry are not considered as objects of enquiry themselves. Fluid enquiry, on the other hand, involves the invention of new conceptions and of tests to validate these conceptions. The goal of this latter mode of enquiry is to develop new principles of enquiry rather than to add to the specific knowledge of a given subject. These two modes of enquiry alternate in the con-

tinuous progress of science; this alternation plays a crucial role in the periodic revision of scientific knowledge.

The author states that much of the “inertia of rest” of science education lies in the organization and orientation of current textbooks. These texts typically embody a *rhetoric of conclusions* (p. 24) in which contemporary and temporary constructions of scientific knowledge are conveyed as empirical or literal. These conceptual components are very often viewed as “end products,” while their role in science is seldom given adequate discussion. Little emphasis, if any, is given to the collection and interpretation of data; unfortunately, the same lack of treatment also exists with respect to the coherence and organization of science.

Throughout the essay Mr. Schwab emphasizes the need for the introduction of a “doubt component” (p. 60) into the science curriculum. The implementation of this recommendation entails that honest statements be made by teachers and texts alike of the areas of ignorance and uncertainty which currently exist in scientific knowledge. To this end the author suggests that it will be necessary to reorient the content of present textbooks, the education of science teachers, and the development of standardized tests. The essay asserts that the achievement of this end will be accomplished only after principles of enquiry, data, and interpretations of data are included in the curriculum along with the “conclusions” of scientific enquiry.

In *Elements in a Strategy for Teaching Science in the Elementary School*, Mr. Brandwein sets for himself the task of elaborating a number of guidelines for an elementary school science curriculum. The essence of the author's essay

is that this curriculum should reflect the fabric of science. Such a curriculum is seen as encompassing not only a considerable segment of the scientist's world but also much of the child's world as well. The necessity of providing children with accurate perceptions of science—the true nature of the scientist and his ways of exploring the world—is stressed. The author feels that these perceptions are absolutely essential if children are really to experience science.

This essay views science as an entity consisting of two dynamic facets: (1) an organized body of knowledge and (2) a way of learning more about the world. In this view of science, the scientist assumes the role of a perpetual learner. Mr. Brandwein recommends that the science curriculum of the elementary school should provide the child with such opportunities that he too is allowed to be curious about the world around him and to seek out answers to his questions. This world of the child is seen as one of naive realism. It is important, therefore, that children not be condemned for being wrong. The author reminds us that a child's "incentive to do individual work relates not only to the freedom to enquire but [also] to the psychological safety which lies in reward for failure and success alike" (p. 123). It is necessary, however, to "confront children, at every stage of *comprehension*, with learning situations in which their *creativity*, in whatever form and in whatever excellence, is brought to play" (p. 118). In other words, children should be afforded opportunities to undertake individual investigations and enquiry.

To encourage enquiry within the elementary school science curriculum does not mean that "structure" is thereby obviated. Within science, scientists endeavor to construct a meaningful picture of

the world from the data around them. Six large conceptual schemes are suggested which might form the basis for a relatively stable science curriculum: (1) under ordinary conditions, matter can be changed but not annihilated or created; (2) under ordinary conditions, energy can be changed or exchanged but not annihilated; (3) there is an interchange of materials and energy between living things and their environment; (4) the organism is a product of its heredity and environment; (5) the universe, and its component bodies, are constantly changing; and (6) living things have changed over the years (pp. 133-136). Mr. Brandwein states that the vast majority of children's questions in science can be assigned as relevant to one or another of these schemes. It is the teacher's function to identify the pertinent conceptual thread.

The author intends that these conceptual schemes be assimilated over a long period of time. He envisions the curriculum as comprising a number of continuous threads extending up through the years of the elementary school. This type of curriculum would be implemented by a planned spiraling of experiences. This spiraling would make allowances for repetition of the large conceptual schemes in new contexts at higher grade levels. The author states that a curriculum of this nature should enable the child to come away with several important ideas: (1) that the universe can and should be investigated, (2) that, although the universe is in a constant state of change, uniformities do exist, (3) that scientific knowledge is ever tentative, and (4) that the scientist's way is not of a single piece but consists of a great number of unique personal modes of seeking answers of nature.

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Enquiry is envisioned by Mr. Schwab as consisting of two distinct modes: stable and fluid. Stable enquiry is typified by efforts to work within current principles—to fill in the “blanks” in existing knowledge; the principles serving as guides to enquiry are not considered as objects of enquiry themselves. Fluid enquiry, on the other hand, involves the invention of new conceptions and of tests to validate these conceptions. The goal of this latter mode of enquiry is to develop new principles of enquiry rather than to add to the specific knowledge of a given subject. These two modes of enquiry alternate in the con-

tinuous progress of science; this alternation plays a crucial role in the periodic revision of scientific knowledge.

The author states that much of the “inertia of rest” of science education lies in the organization and orientation of current textbooks. These texts typically embody a *rhetoric of conclusions* (p. 24) in which contemporary and temporary constructions of scientific knowledge are conveyed as empirical or literal. These conceptual components are very often viewed as “end products,” while their role in science is seldom given adequate discussion. Little emphasis, if any, is given to the collection and interpretation of data; unfortunately, the same lack of treatment also exists with respect to the coherence and organization of science.

Throughout the essay Mr. Schwab emphasizes the need for the introduction of a “doubt component” (p. 60) into the science curriculum. The implementation of this recommendation entails that honest statements be made by teachers and texts alike of the areas of ignorance and uncertainty which currently exist in scientific knowledge. To this end the author suggests that it will be necessary to reorient the content of present textbooks, the education of science teachers, and the development of standardized tests. The essay asserts that the achievement of this end will be accomplished only after principles of enquiry, data, and interpretations of data are included in the curriculum along with the “conclusions” of scientific enquiry.

In *Elements in a Strategy for Teaching Science in the Elementary School*, Mr. Brandwein sets for himself the task of elaborating a number of guidelines for an elementary school science curriculum. The essence of the author’s essay

is that this curriculum should reflect the fabric of science. Such a curriculum is seen as encompassing not only a considerable segment of the scientist's world but also much of the child's world as well. The necessity of providing children with accurate perceptions of science—the true nature of the scientist and his ways of exploring the world—is stressed. The author feels that these perceptions are absolutely essential if children are really to experience science.

This essay views science as an entity consisting of two dynamic facets: (1) an organized body of knowledge and (2) a way of learning more about the world. In this view of science, the scientist assumes the role of a perpetual learner. Mr. Brandwein recommends that the science curriculum of the elementary school should provide the child with such opportunities that he too is allowed to be curious about the world around him and to seek out answers to his questions. This world of the child is seen as one of naive realism. It is important, therefore, that children not be condemned for being wrong. The author reminds us that a child's "incentive to do individual work relates not only to the freedom to enquire but [also] to the psychological safety which lies in reward for failure and success alike" (p. 123). It is necessary, however, to "confront children, at every stage of comprehension, with learning situations in which their creativity, in whatever form and in whatever excellence, is brought to play" (p. 118). In other words, children should be afforded opportunities to undertake individual investigations and enquiry.

To encourage enquiry within the elementary school science curriculum does not mean that "structure" is thereby obviated. Within science, scientists endeavor to construct a meaningful picture of

the world from the data around them. Six large conceptual schemes are suggested which might form the basis for a relatively stable science curriculum: (1) under ordinary conditions, matter can be changed but not annihilated or created; (2) under ordinary conditions, energy can be changed or exchanged but not annihilated; (3) there is an interchange of materials and energy between living things and their environment; (4) the organism is a product of its heredity and environment; (5) the universe, and its component bodies, are constantly changing; and (6) living things have changed over the years (pp. 133-136). Mr. Brandwein states that the vast majority of children's questions in science can be assigned as relevant to one or another of these schemes. It is the teacher's function to identify the pertinent conceptual thread.

The author intends that these conceptual schemes be assimilated over a long period of time. He envisions the curriculum as comprising a number of continuous threads extending up through the years of the elementary school. This type of curriculum would be implemented by a planned spiraling of experiences. This spiraling would make allowances for repetition of the large conceptual schemes in new contexts at higher grade levels. The author states that a curriculum of this nature should enable the child to come away with several important ideas: (1) that the universe can and should be investigated, (2) that, although the universe is in a constant state of change, uniformities do exist, (3) that scientific knowledge is ever tentative, and (4) that the scientist's way is not of a single piece but consists of a great number of unique personal modes of seeking answers of nature.

These two essays constitute signifi-

cant contributions to the hortatory literature of science education. Their main contribution lies in well-stated pleas for definite foci for two levels of the science curriculum. Mr. Schwab's essay emphasizes the importance of conveying to students the essence of the scientific enterprise—the role which various conceptual schemes or principles of enquiry play in the human endeavor which is science. His presentation is generally lucid and convincing. One wonders, however, whether in actual practice Mr. Schwab would place the same relative emphasis on the modes of implementation he suggests as is devoted to them in his essay (classroom discussion and questioning techniques—eight pages, written resource materials—twenty-eight pages, and laboratory work—eight and one-half pages). Mr. Brandwein's essay is an eloquent statement of focus permeated throughout with a definite inspirational quality. Although the ideas developed are neither new nor unique, the author's points are well-made. While the major recommendation advanced—that the elementary school science curriculum be based upon the significant conceptual schemes of science—is clear, the actual implementation of this structure is not clear. What is especially vague is how, within this structure, needless repetition and overlap of material can be avoided and how, within the six or seven years of the elementary school, a proper balance can be achieved in terms of the exploration of these big ideas of science.

Although Mr. Brandwein reminds us more frequently than does Mr. Schwab that *science* is to be taught to *children* and *adolescents*, both essays tend to view science education, not so much as what *can* be taught given specified learners, as what the subject per se, as a body of knowledge and a constella-

tion of processes, has within its own structure to be learned. In the past, as opposed to this philosophy, we have had statements such as this one by Webb: "Science is taught for the child's sake, and not for the sake of science."¹ Although it is possible to concur with some of the implications of both points of view—in particular Schwab's on the one hand and Webb's on the other—their strength and attendant connotations do not seem to be warranted. Instead, it is this reviewer's opinion that *neither* one of the two components in the situation—the student or the subject called science—need be grossly distorted or manipulated to facilitate the learning process. Actually, it seems that neither *can* be distorted if, indeed, we are to be successful in teaching science to our young people. It is quite possible to develop a science curriculum around experiences which are not only consistent with the nature of both the student and science but also highly conducive to the satisfaction of the purposes and needs of both. This point is recognized and acknowledged by Mr. Brandwein whereas it is given only short shrift by Mr. Schwab.

Young people *and* science need the same general conditions within which to develop and progress. The plea of this reviewer is that any formulation of guidelines for a science curriculum should take into consideration the characteristics and needs that are typical of childhood and adolescence. Although we must glean from science itself *what* to teach, we must turn to the student for information which will enable us to determine the *when* and *how* of science education. It should be encouraging to realize that the same gen-

¹ Hanor A. Webb, "Elementary Education." Joseph S. Roucek (Ed.) *The Challenge of Science Education*. (New York: Philosophical Library, 1959), p. 119.

eral conditions are capable of meeting the needs and purposes of both young people and science alike.

PETER B. SHORESMAN
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**TMI-GROLIER PROGRAMED INSTRUCTION
IN GENERAL SCIENCE: WORK AND
MACHINES.**

Halmuth H. Schaefer, Arthur P. Jefferies, Howard S. Phillips, Theodore S. Harakas, and Robert Glaser. *TMI-Grolier, New York, 1962. 278 pp. \$7.50.*

Since "programed instruction" is often hailed as an educational revolution, the interested skeptic waits patiently for an opportunity to examine samples of the new industry. Teaching Materials, Inc., a division of the Grolier Society, has recently produced a series of Programed Textbooks. The one at hand, *General Science: Work and Machines*, consists of 1200 frames which are reputed to require from 8 to 15 hours for completion by the pupil. The lead sheet reports that the "Self-Tutoring Course provides a basic scientific understanding of the fundamentals of work and machines." The five authors include two junior high school teachers and three experienced programers: Halmuth H. Schaefer, Theodore S. Harakas, and Robert Glaser. Therefore, one turns to the program with high hopes.

Unfortunately, the frames develop a vocabulary of terms divorced from experience. In the past educators have contended with verbalisms and sterile academic problems, but here we have all these evils epitomized. Granted that a student who can read will make few mistakes, but in this context, who cares? Possibly, "This permits a much more efficient use of classroom time than has been possible previously. Stu-

dents can come to class with a firm grasp of the fundamental concepts and operations. . . ." But one wonders what is meant by "learning" and by "fundamental concepts." As a word game, it may be useful. Possibly also it will result in increased scores on tests which require only a superficial verbal response. But this is not science.

As further evidence of the lack of concern for any correspondence between this verbal operation and the real world, the diagrams of levers and of inclined planes are not to scale. Also, it continues to be a surprise to learn that "machines can help us." I doubt that this one can, but I am about to appeal to Higher Authority.

FLETCHER WATSON
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**TMI-GROLIER PROGRAMED INSTRUCTION
IN BASIC CHEMISTRY.**

TMI-Grolier, New York, 1962. \$15.00.

The most sterile portion of standard high school chemistry texts has now been programed, rather well, in junior high school language. These volumes include a fairly sophisticated explanation for the structure and properties of matter and for principles of chemical change, and also for the rules which illuminate the structure of the Periodic Table. Some phenomena which illustrate the principles are introduced in the second half of the program.

Unfortunately, there is no significant indication to the learner that he is studying an attempt by human beings to explain the same world which he can observe. The authors provide precious little opportunity for pupils to experience, or even read about, recognizable phenomena from which the explanatory system has been derived. Almost surely pupils who study this program

will regard science as a dogmatic enterprise. Moreover, they may well become confused by and mistrustful of scientific endeavor, for they have been presented an explanatory system which floats free from observable reality. Schwab¹ has described in some detail the adverse effects suggested here.

The authors leave to the teacher's discretion the introduction of laboratory work. Unfortunately, even ingenious teachers will find it difficult to structure meaningful laboratory experiences to accompany this program. There ap-

pears no feasible way to alternate observation with explanation in the first six units (one and one-half volumes). Furthermore, the opportunities for observation in units seven through twelve cannot be transferred to earlier portions of the course; the nature of programmed instruction demands that the authors' sequence be preserved.

The junior high school pupil, in general, has a growing ability to make decisions on the basis of evidence, a developing image of intellectual endeavor, a sense of curiosity about the world, and a desire to explain what he sees. It seems rather doubtful that such characteristics will be refined or enhanced in pupils who study this TMI-Grolier program.

DOUGLAS ROBERTS
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¹ J. J. Schwab, "The Teaching of Science as Enquiry," J. J. Schwab and P. Brandwein, *The Teaching of Science* (Cambridge, Mass.: Harvard University Press, 1962).

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*Some "intervening variables" influencing the educational aspiration of adolescents are isolated and analyzed.
The author considers the implications of these findings for educational policy and guidance practice.*

ROBERT E. HERRIOTT

Harvard University

Some Social Determinants of Educational Aspiration*

This paper examines a basic facet of the "human talent" problem. Historically, Americans have ascribed value to the equalitarian view that society should be kept "open" so that individuals can develop and extend their native talents. However, although taking pride in the accomplishments of those of humble origin who have risen in the occupational world, American society has seldom expressed concern over the many talented individuals of humble origin who have failed to develop or extend their talents.

Today human talent is being viewed in a new light. In addition to an awakening humanistic concern, there exists a component of national self-interest in most statements regarding the fuller utilization of human talent. The president of the American Council on Education has commented:

Human talent is our greatest natural resource. Its conservation and development should be, therefore, a primary concern of everyone. When human talent is wasted, everyone is deprived; when it is rightly developed, everyone benefits. Indeed, Ameri-

* This monograph represents a consolidation and extension of two papers by the author: 1) "Some Social Determinants of Level of Educational Aspiration," presented at the 1961 meeting of the American Sociological Association, and 2) "A Theoretical Framework for the Study of Educational Aspiration," presented at the 1962 meeting of the American Educational Research Association. The writer is indebted to Neal Gross, Wade Robinson, Robert Dreeben, and Peter Dodd for their helpful suggestions regarding the organization and presentation of this research.

can democracy is firmly established on the bedrock proposition that the fortunes of the individual and society rise and fall together (Adams, 1956, p. v).

The president of a large state university sharpens the nature of this recent concern. He states:

Ours is a troubled age of intensified international competition which may at any time turn into the final world war.... The potential benefits of the college-trained to society must cease to be regarded as incidental by-products. In addition to a continued emphasis on self-development as an end in itself, we must also give more thought to the use of higher education as an instrument for our national survival (L. Wilson, 1955, p. 101).

Statements of this type generally are followed by pleas for action. Frequently, it is proposed that steps be taken to insure that more of America's talented youth attend college. Although definitions of "talented" and of "college" often vary greatly, there is consensus that a gap exists between the number of adolescents who possess the greatest potential to benefit intellectually from a college education and the number who actually receive it. Wolfe (1954) has reported that "fewer than half of the upper 25 per cent [in mental ability] of all high school graduates ever earn college degrees" (p. 269). Berdie (1954) reports that "of the 3,939 [Minnesota twelfth-graders] who had A.C.E. scores of 120 or above, 32 per cent were not planning to attend college" (p. 58). From the most recent national survey it can be estimated that 30 per cent of the twelfth-graders in the United States with mental ability scores in the top three tenths were not planning to go to college (Educational Testing Service, 1957, Table C-1).

The remainder of this paper seeks to isolate factors influencing the educational aspiration of adolescents and to suggest how such factors can be influenced to encourage more talented youth to continue their formal education beyond high school.

THEORETICAL CONSIDERATIONS

The study of factors related to the educational aspiration of adolescents has been an important problem area in educational research. Large sample surveys have been conducted in Kentucky, New York, Minnesota, Wisconsin, and Indiana (B. Davis, 1942; Reeves, Henderson & Cowan, 1948; Berdie, 1954; Little, 1959; Wright & Jung, 1959), as well as for the nation as a whole (American Council on Education, 1949; Educational Testing Service, 1957). Through such investigations a series of social, economic, and intellectual characteristics of adolescents has been related to their educational plans. We know, for example, that boys have higher educational aspiration than girls;

that children of well educated parents have higher aspiration than children of poorly educated parents; that children in high income families have higher educational aspiration than children in low income families.

However, what is not known are the mechanisms through which these correlates tend to operate in influencing educational aspiration. A major assumption underlying this paper is that the search for these mechanisms or "intervening variables" can be most productive if it is logically and theoretically oriented and not primarily an empirical quest.

This last point requires some elaboration. Let us consider several of the empirically derived correlates of educational plans mentioned above. It is not reasonable to assume that boys have higher educational aspiration than girls simply because they are boys, or that children in high income families have higher educational aspiration than do children in low income families simply because their parents have more money.

I would suggest that rather than being determinants of educational plans, such variables as sex, family education, family income, and the other status characteristics of adolescents most frequently reported in the educational research literature are simply predictors which gain their predictive power through their association with other variables. In other words, it is reasonable to assume the existence of variables which intervene between the social, economic, and intellectual characteristics of an adolescent and his educational plans. That is, boys have higher educational aspiration than girls, not simply because they are boys, but because specific social forces conducive to planning for college are operating more upon them than they are upon girls; and children of high income families have higher educational aspiration than do children in low income families, not simply because their parents have more money, but because specific social forces conducive to planning for college are operating more upon them than they are upon children in low income families. The same line of reasoning can be applied to most of the other predictors of educational plans suggested in the educational research literature.

What then are some of these social forces which can intervene between an adolescent's social, economic, and intellectual characteristics and his educational plans? In exploring this question several theoretically oriented investigations in the field of sociology can be of considerable value.

In a pioneer study of the field of aspiration, Chapman and Volkman (1939) studied experimentally some possible social determinants of level of aspiration. They reasoned that "one way in which the social environment might determine the level of aspiration of a given individual would be through his knowledge of the achievement of groups whose status or ability, relative to his own, he could assess" (p. 225). Therefore, four groups of students in a college course in psychology were asked to estimate their scores on a test of

literary acquaintance. "Group A" was given no prior knowledge about the performance of others on this task. "Group B" was told the average score obtained by a group of authors and literary critics (a group of apparent superior ability to the study subjects). "Group C" was told the average score obtained by a group of students in college psychology (a group of apparent equal ability to the study subjects). "Group D" was told the average score obtained by a group of unselected WPA workers (a group of apparent inferior ability to the study subjects). The investigators report that the estimates made by the subjects varied as predicted with their prior knowledge of the average score of the other group whose intellectual status relative to their own they could assess. Chapman and Volkman conceptualized this knowledge as being the subjects' "frame of reference."

Hyman (1942) studied a person's conception of his own position relative to other individuals. He termed this conception "subjective status" to distinguish it from status determined on the basis of some objective criterion. Hyman interviewed adults who varied in sex, age, marital status, income, education, occupation, and religion and found that they not only thought about status and considered themselves to be higher or lower than others in status, but also that they thought of status in multi-dimensional terms. Hyman coined the term "reference group" to describe the groups and individuals who were used as subjective frames of reference in assessing locations on different status dimensions.

Merton and his associates, building on the work of Chapman and Volkman, Hyman, and others, have further developed the reference group concept by emphasizing that in making a self-assessment an individual compares himself with others. One of Merton's major elaborations has been that reference groups need not be individuals or groups with whom the actor has any direct or personal relationship.

There is evidence, then, to suggest that individuals use their perceptions of others as "frames of reference" for subjective self-assessments, attitude formation, and behavior, and that these others need not exist in any primary relationship to the individual. Reference groups, in short, serve a comparison function (Merton 1957, p. 283).

There is also a body of theory and evidence which suggests that others in one's environment perform a normative function as well. One presentation is made by Gross who sees this normative function from the perspective of "role theory." Gross (1958) has isolated three basic ideas which appear in most of the conceptualizations of the term "role" which he has examined. Namely, "... that individuals: (1) in social locations (2) behave (3) with reference to expectations" (p. 17). One source of these expectations is seen to be "others

in the group or society" in which a given individual participates. However, Gross notes that

... some expectations apply to certain individuals and not to others. Whether a particular expectation is assigned to an individual depends upon his identity. Whether a person is identified as a male or female, as a policeman or a teacher, a salesclerk or a janitor, a member of one social system or another makes a difference in the expectations others hold for him.... Expectations are assigned to individuals on the basis of their locations or positions in social systems (p. 18).

To distinguish among social positions for analytic purposes, Gross views the individual who occupies a given position that is the central object of study as the "incumbent of a focal position" and all others with whom he interacts as "incumbents of counter positions."

The theory of aspiration to be presented below is based upon propositions and assumptions from Merton and Gross. Since our theory uses both the comparison function and the normative function of reference groups in a single formulation, we have, for the sake of clarity, chosen to use Hyman's term "reference group" when considering others in the comparison sense and Gross' term "counter position" when considering them in the normative sense.

The starting point of our analysis is the sociological proposition that all societies possess some form of status differentiation, but that societies vary in the nature and extent of this differentiation (cf., Sorokin, 1927; K. Davis, 1949; Warner *et al.*, 1949; Parsons, 1951; Kahl, 1957; Barber, 1957). A second proposition is that one form of status differentiation common to many societies is one which has as its basis certain socio-economic-intellectual dimensions, the specific nature of which may vary both among and within societies (cf., Warner & Lunt, 1941; Warner *et al.*, 1949; Inkeles, 1950; Inkeles & Rossi, 1956; National Opinion Research Center, 1947). A third is that in American society, unlike many other societies, human beings are not locked to the status of their parents, but are free to desire for themselves and to attempt to achieve any status on any dimension (cf., Davidson & Anderson, 1937; Centers, 1948; Rogoff, 1953; Bendix, Lipset, & Malm, 1954; Chinoy, 1955; Miller, 1955). A fourth proposition is that this desire or "aspiration" develops in a context of social interaction (cf., Kahl, 1957; McClelland *et al.*, 1958; Cohen, 1958; A. B. Wilson, 1959, 1960). Given these propositions, the extent to which any given individual or group of individuals aspires to achieve any given status may be viewed as being influenced by the following two related social conditions which need to be separated for analytic purposes.

One influence upon an individual's level of aspiration is the level of his

self-assessment relative to others. Human beings are observing creatures who gain information about themselves and others through interaction with others. Participant observations made in one's immediate environment are the primary source of such information, while observations made through mass media yield additional information. Human beings can assess information and can evaluate it as to its relevance in a specific context. In general, an individual will aspire to do that which he perceives others have done who are similar to himself in relevant ways. These others are his reference groups, and the bases of his perceived similarity to them constitutes dimensions of self-assessment.

A second influence on an individual's level of aspiration is the level of the *expectations* which he *perceives significant others* hold for his behavior. Incumbents of counter positions in the social network in which an individual is involved are the primary source of expectations while incumbents of counter positions isolated from the individual can be perceived to hold expectations also. Some of the many possible counter positions will be more relevant than others. Any given counter position is relevant to the extent that incumbents of that counter position interact with incumbents of the focal position regarding possible aspiration. However, not all relevant counter positions will have incumbents who influence significantly the aspiration of the incumbent of a given focal position. In general, the incumbent of a given counter position will influence significantly the level of aspiration of the incumbent of a given focal position in direct proportion to the level to which his expectations are valued by the incumbent of that focal position.

In short, it is maintained that the level of aspiration of the incumbent(s) of a given focal position may be viewed in part as a function of: 1) the level of *self-assessment relative to others* which he has gained through comparing himself with relevant reference groups, and 2) the level of the *expectations* that he *perceives significant incumbents of relevant counter positions* hold for his behavior.

This theoretical model is a general one. It specifies two factors—*self-assessment* and *expectation*—that influence the level of aspiration in diverse social contexts. Consequently, the theory should be relevant in the study of salesmen who aspire to become salesmanagers, privates who aspire to become sergeants, politicians who aspire to become president, as well as in the study of adolescents who aspire to become college students. The specific dimensions of self-assessment and the specific loci of expectations (i.e., the counter positions) will vary, of course, depending upon the empirical area. These specifics will have to be determined empirically for each of the unique situations to which the theory is applied.

The value of a new theoretical formulation can be assessed in part from

the extent to which it accomplishes two objectives. First, it should encompass previously observed consistent relationships, and secondly, it should suggest previously unobserved relationships—the latter being best accomplished through the development of specific hypotheses which are capable of an empirical test. This theory attempts to accomplish these objectives.

The frequently replicated empirical finding that high ability adolescents have differential levels of educational aspiration can be "explained" in terms of the theory on the basis that high ability adolescents make differential self-assessments of their relevant characteristics (e.g., of "intelligence" or "financial ability") and/or that they perceive differential expectations from incumbents of relevant counter positions (e.g., "father," "mother," or "friend"). The fact that salesmen have differential levels of aspiration can be "explained" in terms of the theory on the basis that salesmen have differential self-assessments of their relevant characteristics (e.g., of "drive" or "skill in handling people") and/or that they perceive differential expectations from incumbents of relevant counter positions (e.g., "wife" or "boss"). The fact that politicians have differential levels of aspiration can be "explained" in terms of the theory on the basis that politicians have differential self-assessments of their relevant characteristics (e.g., of "religion" or "age") and/or that they perceive differential expectations from incumbents of relevant counter positions (e.g., "political bosses" or "power figures").

The theory is also heuristic, for it permits the generalization of the relationships reported by Kahl (1953) and Cohen (1958) between educational aspiration and "parental pressure" to "pressure" (i.e., *expectations* as we have defined them) perceived from others in an adolescent's environment. Such pressures have tended to be empirically ignored. The theory also permits the generalization of the influence of "pressure" on the level of aspiration of individuals to a number of other mobility contexts.

RESEARCH DESIGN

An empirical investigation was designed to test several of the theoretical propositions suggested above in the context of the educational aspiration of adolescents. This study dealt with seven bases of self-assessments and eleven loci of expectations. Self-assessment relevant to educational plans were assumed to be made by adolescents on the basis of: intellectual motivation, intellectual ability, intellectual performance, economic motivation, economic performance, social performance (school), and social performance (non-school). The nominal definitions of these seven bases of self-assessments are presented in Table 1.

TABLE 1

Nominal Definition of Major Bases of Self-Assessment

<i>Major Basis of Self-Assessment</i>	<i>Nominal Definition</i>
1. Intellectual Motivation	The extent to which an adolescent spends time on school lessons and assignments.
2. Intellectual Ability	The extent to which an adolescent finds his school work "easy" or "hard."
3. Intellectual Performance	The grades which an adolescent receives in his school courses.
4. Economic Motivation	The extent to which an adolescent works at part-time jobs to earn money.
5. Economic Performance	The extent to which an adolescent is able to spend money for clothes, cars, records, movies, etc.
6. Social Performance (School)	The type of clubs and activities which an adolescent participates in while in school.
7. Social Performance (Non-school)	The type of social activities which an adolescent participates in while outside of school.

Expectations relevant to educational plans were assumed to be perceived by adolescents from incumbents of the following social positions: father, mother, older sibling or relative, friend of same age, friend a few years older, junior high counselor, senior high counselor, junior high teacher, senior high teacher, adult friend of the family, some other adult. Some possible incumbents of these eleven positions are presented in Table 2.

TABLE 2
Loci of Expectations

<i>Social Position (Locus)</i>	<i>Possible Incumbents</i>
1. Father	Father, step-father, guardian
2. Mother	Mother, step-mother, guardian
3. Older sibling or relative	Brother, sister, aunt, uncle
4. Friend of same age	Best-friend, boy friend, girl friend
5. Friend of a few years older	Neighbor, team-mate, boy friend
6. Junior-high counselor	Counselor "A," counselor "B"
7. Senior-high counselor	Counselor "C," counselor "D"
8. Junior-high teacher	Homeroom teacher, math teacher
9. Senior-high teacher	Homeroom teacher, English teacher
10. Adult friend of the family	Father's colleague, mother's friend
11. Some other adult	Employer, scoutmaster, minister

The variety of educational opportunities available to adolescents can be characterized in many ways. It was decided to represent them in the form of eight mutually exclusive future plans, ranging from dropping-out of high school to completing a post-college graduate or professional school. These eight plans are presented in Table 3.

TABLE 3
Description of Eight Future Educational Plans

<i>Plan</i>	<i>Description</i>
A	Quit high school before graduation to get a job (or to go into the service).
B	Graduate from high school, get a <i>full-time job</i> (or go into the service) with <i>no plans</i> for any more schooling.
C	Graduate from high school, get a <i>full-time job</i> (or go into the service) <i>for a few years</i> , and then go on to school or college.
D	Graduate from high school, get a <i>full-time job</i> and go to school or college <i>part-time</i> .
E	Graduate from high school, go to a <i>one- or two-year school or college full-time</i> , and <i>then</i> get a <i>full-time job</i> (or go into the service).
F	Graduate from high school, go to a <i>one- or two-year school or college full-time</i> , and <i>then transfer</i> to a <i>four-year college or university</i> . After graduation get a <i>full-time job</i> (or go into the service).
G	Graduate from high school, go <i>directly</i> to a <i>four-year college or university</i> . After graduation get a <i>full-time job</i> (or go into the service).
H	Graduate from high school, go <i>directly</i> to a <i>four-year college or university</i> . After graduation <i>go on</i> to a graduate school or a professional school for <i>further study</i> .

Three general hypotheses developed from the theory were selected for an empirical test. These hypotheses are:

1. The higher the level of self-assessment relative to others, the higher the level of educational aspiration of adolescents.
2. The higher the level of expectation perceived from significant others, the higher the level of educational aspiration of adolescents.
3. Holding constant level of self-assessment relative to others, the more an expectation perceived from a significant other is valued, the stronger the association between level of expectations perceived from significant others and level of educational aspiration.

To test these three hypotheses data were collected by means of a specially designed 30-minute precoded questionnaire (*Your Future Plans*) administered to 1489 adolescents in one public high school in western Massachusetts.¹

¹ The community in which the study was conducted is a heterogeneous urban community isolated from other urban areas. Residents of the community show considerable variability in the various social, economic, and intellectual characteristics which have been known to be related to the educational plans of adolescents. Through its large comprehensive high school, the community offers a varied education program to students of all abilities under the aegis of a single administration. A strong guidance department and a dominant industry which desires employees with considerable technical or clerical skills help make the youth of the community aware of a plurality of opportunities for furthering their education beyond high school.

For a detailed description of the social status characteristics of the 1489 adolescents in the study sample, as well as the relationship of these background variables to their educational plans, see Herriott (1961).

Measures on the dependent variable (educational aspiration) were obtained by asking each adolescent to read carefully the eight plans presented in Table 3 and then to indicate which one of them was most like what he was planning to do.

To measure level of self-assessment, each adolescent was asked to think of other people who were at least a year ahead of him in school and who he felt were like him in terms of the nominal definition of each of the seven bases of self-assessment presented in Table 1. In this manner his attention was focused in turn upon seven different possible reference groups, each one defined in terms of a different basis of self-assessment. In each instance he was asked "which *one* of the eight plans is *most like* what most of these people have planned to do?"

To measure level of expectation, each adolescent was asked to think in turn of the one incumbent of each of the eleven social positions presented in Table 2 who had been most interested in his future plans. When he had done this he was asked to tell "which one of the eight plans is most like what you feel [that person] thinks you should do?"

To develop an index of the degree to which an expectation from a significant other was valued, each of the respondents was asked the following four questions.

1. "Of the eleven people whom you had in mind above [i.e., the incumbents of the eleven relevant counter positions] whose advice about future plans do you value *the most*?"
2. "... do you value the second most?"
3. "... do you value the third most?"
4. "... do you value the fourth most?"

By identifying for each respondent the expectation perceived from each of these four "most valued others," four derived or secondary independent variables were created. They are:

1. Most valued expectation.
2. Second most valued expectation.
3. Third most valued expectation.
4. Fourth most valued expectation.

The design of the study called for a series of zero-order, partial, and multiple correlations to be used in testing the three hypotheses. Therefore, considerable attention was given to the metric and form of the 23 variables (one dependent, eighteen primary independent and four secondary independent) resulting from the operations described above.²

² The results of several pre-tests suggested that levels of educational aspiration, self-assessment, and expectation could best be defined by combining Plans C, D, E, and F into a single

ANALYSIS AND RESULTS

The first hypothesis tested was: "the higher the level of self-assessment relative to others the higher the level of educational aspiration of adolescents." In testing this hypothesis zero-order correlations between each of the seven self-assessment variables and level of educational aspiration were computed. These correlation coefficients, ranging from .50 to .71, are presented in Table 4. Each of these coefficients is significantly different from zero at below the .001 level. To explore this relationship further, the multiple correlation of the seven self-assessment variables with educational aspiration was computed. The maximum degree of association which exists in these data between self-assessment and educational aspiration is represented by the coefficient $R_{A.S}$ which is .79. This coefficient is significantly different from zero at below the .001 level. Therefore, the null hypothesis was rejected and Hypothesis One accepted.

In testing Hypothesis Two, that "the higher the level of expectation perceived from significant others the higher the level of educational aspiration

TABLE 4
Zero-Order and Multiple Correlation of the Seven Self-Assessment Variables with Level of Educational Aspiration
(N=1489)

Self-Assessment Variable	Zero-Order <i>r</i>	Seventh-Order Multiple <i>R</i>
Self-Assessment on the Basis of:		
1. Intellectual Motivation	.653***	
2. Intellectual Ability	.605***	
3. Intellectual Performance	.707***	
4. Economic Motivation	.496***	
5. Economic Performance	.599***	
6. Social Performance (School)	.602***	
7. Social Performance (Non-School)	.575***	
		$R_{A.S} = .7861$

*** $p < .001$

¹ The 99 per cent lower confidence bound for this coefficient is .762.

level. This had the effect of equating the variety of ways of continuing one's education beyond high school without going directly to a four-year college. To validate the resulting five point scale, this coding of the subjects' educational plans was related to their independent estimate of the number of years of future schooling they were planning. These two variables—coded plans and years of future schooling—when related yielded an *r* coefficient of .823 and an *eta* coefficient of .827. The form of all twenty-three variables was "roughly" normal with "roughly" similar variances. The bivariate regressions of each of the twenty-two independent variables on the dependent variable were inspected and found to be "roughly" linear. Therefore, the use of multivariate statistical models was deemed appropriate.

of adolescents," a parallel analysis was performed. The zero-order coefficients ranging from .67 to .82 are presented in Table 5. The multiple correlation $R_{A.E}$ is .89 and is significantly different from zero at below the .001 level. Therefore, the null hypothesis was rejected and Hypothesis Two accepted.

TABLE 5

*Zero-Order and Multiple Correlation of the Eleven Expectation Variables with Level of Educational Aspiration
(N=1489)*

<i>Expectation Variable</i> Expectation Perceived From:	<i>Zero-Order</i> r	<i>Eleventh-Order</i> R
1. Father	.784***	
2. Mother	.797***	
3. Older Sibling or Relative	.772***	
4. Friend of Same Age	.821***	
5. Friend a Few Years Older	.795***	
6. Junior High Counselor	.670***	$R_{A.E} = .8941$
7. Senior High Counselor	.788***	
8. Junior High Teacher	.720***	
9. Senior High Teacher	.748***	
10. Adult Friend of the Family	.772***	
11. Some Other Adult	.768***	

*** $p < .001$

¹The 99 per cent lower confidence bound for this coefficient is .882.

In testing Hypothesis Three seventh-order partial correlations between each of the four "most valued expectation" variables defined above and educational aspiration (holding constant the association of the seven self-assessment variables and educational aspiration) were computed. These coefficients are presented in Table 6. It will be noted that the strongest relationship exists between "most valued expectation" and educational aspiration, the second strongest relationship between "second most valued expectation" and educational aspiration, the third strongest relationship between "third most valued expectation" and educational aspiration, and the fourth strongest relationship between "fourth most valued expectation" and educational aspiration. This is the order predicted by the hypothesis.

Our chance model in testing Hypothesis Three is a nonparametric one. The exact probability of the predicted rank ordering occurring purely by

TABLE 6

*Seventh-Order Partial Correlation of Expectation-Value Variable
With Level of Educational Aspiration, Holding Constant
the Seven Self-Assessment Variables*

(N=1489)

<i>Expectation-Value Variable</i>	<i>Seventh-Order Partial r</i>	<i>Rank Order of Partial r</i>	$P = .041$
Most Valued Expectation	.600	1	
Second Most Valued Expectation	.566	2	
Third Most Valued Expectation	.512	3	
Fourth Most Valued Expectation	.486	4	

TABLE 7

*Partial and Multiple Correlation of Eighteen
Independent Variables with Level of Educational Aspiration*

(N=1489)

<i>Independent Variable</i>	<i>Seventeenth-Order Partial r</i>	<i>Eighteenth-Order Multiple R</i>
Self-Assessment on the Basis of:		
Intellectual Motivation	-.010	
Intellectual Ability	.015	
Intellectual Performance	.145***	
Economic Motivation	.042	
Economic Performance	.079**	
Social Performance (School)	.060*	
Social Performance (Non-School)	.002	
Expectation Perceived from:		$R_{A.S. + E} = .901^1$
Father	.129***	
Mother	.129***	
Older Sibling or Relative	.092***	
Friend of Same Age	.248***	
Friend a Few Years Older	.103***	
Junior High Counselor	-.036	
Senior High Counselor	.158***	
Junior High Teacher	.037	
Senior High Teacher	.022	
Adult Friend of the Family	.021	
Some Other Adult	.018	

* $p < .05$

** $p < .01$

*** $p < .001$

¹ The 99 per cent lower confidence bound for this coefficient is .889.

chance under the null hypothesis of no association between the degree to which an expectation is valued and the strength of the relationship between expectation perceived from significant other and educational aspiration is equal to .041 (i.e., $1/4!$). Therefore, the null hypothesis was rejected and Hypothesis Three accepted.

The acceptance of the three hypotheses tested above lends support to the theory from which they were developed. Aspiration does vary empirically with level of self-assessment and level of expectation. However, of interest to both the social scientist and the educational practitioner are the specific bases of self-assessment and the specific loci of expectation contributing most to these relationships.

To assist in the isolation of the unique contribution of each of the eighteen primary independent variables to the observed relationships, the seventeenth-order partial correlation of each of these eighteen variables with educational aspiration (holding constant the joint association of the remaining seventeen variables with educational aspiration) was computed. The eighteen partial correlation coefficients, ranging from .00 to .25, are presented in Table 7.

In terms of what have been defined as self-assessment variables, only self-assessment relative to others based upon "intellectual performance," "economic performance," and "social performance (school)," bear any significant relationship with educational aspiration that is independent of the relationship between all the other seventeen independent variables and educational aspiration. In terms of what has been defined as expectation variables, only the expectations perceived from "father," "mother," "older sibling or relative," "friend of same age," "friend a few years older," and "senior high counselor" bear any significant relationship with educational aspiration that is independent of the relationship between all the other seventeen independent variables and educational aspiration.

Each of these nine variables offers a unique contribution to the relationships noted earlier of self-assessment and expectation with educational aspiration. Although causality cannot be demonstrated through this type of correlational analysis, the findings indicate that of the eighteen independent variables considered in this investigation these nine variables are *most likely* to be determinants of the educational aspiration of adolescents similar to those in this sample.

IMPLICATIONS FOR EDUCATIONAL POLICY

During the past decade the Congress and many state legislatures have been asked to consider legislation proposing governmental programs in support of scholarships and fellowships. This investigation substantiates the conclusions of Berdie (1954), Wolfe (1954), Cole (1955), and McClelland (1958)

that the practice of offering additional scholarship aid to students of high ability and low aspiration may not *by itself* have the desired impact upon their educational plans. However, there are those who disagree. Little (1959) states:

Lack of money is the major deterrent expressed by one-third to one-half of the high ability graduates not going to college. . . . The data suggest that programs of financial assistance do not have to be massive in scope or amount to be effective in attracting capable youth to college (pp. 35-36).

We agree with Little that financial assistance might *attract* additional youth to college. However, our findings raise the question: how long would those who did go to college stay if no effort were made to influence the social support which they receive from significant others in their major social networks? Of the nine variables which were significantly related to level of educational aspiration in the study sample, "economic performance" has the second smallest association with level of aspiration (Table 7). There is need for additional research to study the influence of economic considerations under various conditions and with intervening variables such as peer expectations held constant.

Such investigations may help to shed light on the perplexing fact that low "economic performance" is a barrier to some bright adolescents while to others it is merely a hurdle.

Those concerned with the development of national policies for increasing the educational aspiration of talented adolescents may attach special importance to our finding that significant others in an adolescent's environment can have considerable influence over his educational plans. What should be particularly noted is the finding that the strongest independent relationship with level of educational aspiration observed in these data was with the expectation perceived from a "friend of the same age." This variable has been greatly neglected in most formulations for national or regional action.

McClelland (1958) has suggested the creation of new structural organizations to remove talented adolescents from negative family influence. We suggest that consideration also be given to the development of programs which would enable talented adolescents confronted with "negative" *peer* influence to develop peer relationships with adolescents more likely to exert a positive influence upon their educational aspiration. Prominent families having children with marginal achievements and aspirations frequently use private schools for just such purposes. What are now needed are opportunities such as summer camps or boarding schools which provide facilities for low aspiring adolescents of high ability to re-assess themselves in terms of an aspiring peer reference group and to participate within networks of college-bound peers.

Although it was not designed for this purpose, the "Summer Science Training Programs for High Ability Secondary School Students" sponsored for the past few summers by the National Science Foundation could have this type of a side effect. However, it would appear from the report of one such program (cf. Cooley & Bassett, 1960) that the adolescents selected for these programs already have college aspirations. Our data suggest that it may be wise to create similar opportunities for adolescents of high ability but low aspiration.

One notable attempt to set up a new structural organization to assist in the raising of the level of aspiration of adolescents is the Demonstration Guidance Program of the New York City Public Schools. Wrightstone (1960) has described the objective of this program as an attempt ". . . to identify and stimulate able pupils from a culturally deprived area to reach higher educational and vocational goals." (p. 237). Although it is not explicit what independent variables this program is manipulating, there would appear to be many opportunities within its curricula of cultural enrichment and intensive guidance for adolescents to re-assess themselves in terms of college-bound reference groups and for them to be exposed to significant others (primarily counselors) who hold high expectations for their educational attainment. For this reason the outcomes of this project should be closely followed by those interested in influencing educational aspiration for national objectives.

The highest relationship with educational aspiration reported in these data was with expectation perceived from one's best friend. The second highest relationship was with expectation perceived from "senior high counselor" (Table 7). This finding would imply that counselors *can* make a real difference in the educational aspiration of adolescents. However, what is greatly needed is research to investigate the circumstances under which expectations perceived from guidance counselors are critical. One possibility is that when the expectations perceived from one's father and mother conflict, the counselor becomes highly significant. Another possibility is that when expectations perceived from one's parents and peers conflict, the counselor becomes highly significant. Under what conditions are these relationships likely to exist? There exists today a great need for research on the distinguishing characteristics of counselors who have successfully intervened in an adolescent's behalf. Our theory suggests that counselors whose advice is valued will have more impact than those whose advice is not and our data support this (Table 6), but we need to determine the distinguishing characteristics of counselors whose advice is valued.

IMPLICATIONS FOR GUIDANCE PRACTICE

Our findings that self-assessment relative to others and expectation perceived

from significant others are related to the educational plans of adolescents may have important implications for clinical guidance practice in American secondary schools. To illustrate one possible use of the *Your Future Plans* instrument as an aid in guidance practice, let us make two assumptions. First, let it be assumed that there is consensus among the guidance counselors of the high school in which our data were collected that, for mental health reasons, appropriate school personnel should attempt to intervene in situations in which adolescents perceive greatly divergent or conflicting expectations as to what they should do upon completing high school. Second, let it be assumed there is an additional consensus that, in the interest of maximizing human talent, school personnel should give primacy to attempts to intervene in influencing youth with mental ability scores of 120 or greater to plan to attend college immediately after completing high school.

Given these assumptions, the data provided by each of the 1489 students

TABLE 8
Specimen "Expectation Profile"

Student	Index of Heterogeneity of Expectation	IQ Score	Educational Plan ¹	High School Counselor			Father	Mother	<i>Expectation Perceived from:²</i>
				Friend of Same Age	Father	Mother			
A	2.8	132	7	8	2	8	8	8	
B	2.5	148	3	8	5	5	5	5	
C	2.5	136	2	2	2	2	2	2	
D	2.4	129	2	7	2	2	2	2	
E	2.3	144	2	7	7	2	2	6	
F	2.3	121	3	3	3	3	8	6	
G	2.3	121	2	5	2	2	2	2	
H	2.2	138	3	3	8	3	3	3	
I	2.1	134	2	3	3	7	7	7	
J	2.1	126	4	5	2	7	7	7	
K	2.1	125	5	3	2	7	7	5	
L	2.0	132	2	2	2	2	2	3	
M	2.0	127	3	7	3	3	3	3	
N	2.0	126	3	7	3	3	2	5	
O	2.0	122	2	5	2	2	2	7	
P	2.0	121	3	7	3	3	3	7	
Q	2.0	121	3	7	3	7	7	7	
R	2.0	121	2	5	2	2	2	6	
S	2.0	120	3	7	3	7	7	7	
T	2.0	120	2	7	2	2	2	2	

¹ Standard deviation of the expectations perceived from incumbents of the eleven counter positions presented in Table 2.

² Plans and expectations coded as follows: A=1, B=2, C=3, . . . H=8 (see Table 3 for description).

in the study sample were coded numerically and along with IQ scores provided by the guidance office were punched into IBM cards. As a measure of the heterogeneity of the expectations perceived by each student, the standard deviation of the eleven perceived expectations reported by each student was electronically computed and punched into the same card. A sort was then made to identify all students with an IQ score of 120 or greater. With these high-ability students identified, a further sort was made to order their cards in decreasing order of heterogeneity of expectations. Next a print-out was made listing the relevant data for these students tabularly. For the purpose of further illustration, a tabulation of the appropriate data for only the 20 high-ability students with the *greatest heterogeneity of expectations* is presented in the form of an "expectation profile" (Table 8).

In interpreting Table 8, it should be noted that plans and expectations coded 4, 5, 6, 7, and 8 involve going to some form of college immediately after high school. Therefore, it can be seen that of these 20 talented students with high degrees of heterogeneity of expectations only three (A, J, & K) are planning to go to college immediately after high school. This should be rather revealing to counselors who are committed to the philosophy assumed above. Certainly they would want to take a close look at the seventeen "non-college" students.

In five cases (C, F, H, I, & L) of the remaining seventeen, the counselor is perceived by the student as not thinking the student should go to college. The multivariate analysis reported in Table 7 suggests that in this high school the counselor is one of the most important influences on the future educational plans of these students. Therefore, these five students represent an opportunity for the counselor to plan some remedial action which could clarify the students' perception of what the counselor felt they should do.

In the remaining twelve (B, D, E, G, M, N, O, P, Q, R, S, & T) of the seventeen non-college cases, the student perceives that the counselor thinks he should go on to college, yet he is not planning to do so. The theory presented above maintains that some other loci of expectation are exerting greater influence upon these twelve students than is the counselor. The findings presented in Table 7 suggest that most prominent among these is the student's friend of his own age. This finding can have a useful application here. In eleven (B, D, E, M, N, O, P, Q, R, S, & T) of the twelve non-college cases where the counselor is perceived to think that the student should immediately go to college, the student's friend is perceived to think he should not, and in all eleven of these cases the student is planning what he feels his friend thinks he should do.

It was also suggested in Table 7 that the father plays an important role in the influencing of these students. In ten (B, E, G, M, N, O, P, R & T) of the

twelve non-college cases where the counselor is perceived to think the student should go on to college and the student was not so planning, the father was perceived as not thinking the student should immediately go on, and in all ten of these cases the student was planning to do what he perceived his father to think he should do.

Table 7 suggests that the mother also plays an important part in influencing the educational aspiration of these students. In six (B, D, G, M, N, & T) of these same twelve cases, the mother was perceived as not thinking her child should immediately go on to college, and in all six cases the student was planning to do what he perceived his mother to think he should do.

It would appear, therefore, that the counselor of these twelve students faces several different manifestations of social forces united in opposition to his perceived professional judgment. For six students (B, D, G, M, N, & T), he faces a formidable coalition of the student's friend, father and mother all opposing his professional judgment. For three students (O, P, & R), it is a coalition of friend and father. For two students (S & Q), it is the friend who singly among these alters is opposing his judgment, while in one case (E) it is just the father.

Knowing these facts, the counselor of these twelve students might well want to consider instituting remedial action which varies with these various configurations of social forces. The data presented in Table 6 suggest that he might attempt to work through others whose advice the student most highly values. Obviously, this will not be an easy task, but it would appear that the forces confronting the counselor have, through this analysis, been more clearly identified than sometimes is the case.

An analysis similar to this could be made in terms of the various dimensions of self-assessment utilized in this research. Through the use of a measure of heterogeneity of self-assessment, adolescents who have a high degree of such heterogeneity can be isolated and counseled in reference to their particular pattern of self-assessment. In some instances it may be desirable to recommend that adolescents be placed in particular social situations (e.g., summer science camps) which will enable them to re-assess themselves in terms of reference groups with high aspirations. In other instances it may be desirable to give an adolescent a better "objective picture" of himself by helping him to compare his characteristics with those of others like him who have gone to college. In still other instances it may be desirable to change his "objective status" through financial aid. Such profiles of self-assessment or expectations can help to extend the type of guidance materials currently available to counselors, and can assist counselors in the early identification and guidance of adolescents with high ability and low aspiration.

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Professor Logan presents informal evidence to indicate that educators should engage in rigorous investigation of certain aspects of learning using a micromolar approach to behavior. He contends that such research might produce an increased emphasis on and understanding of practice speed and other aspects of learning which could result in changing current educational practices.

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Micromolar Behavior Theory and Performance Speed in Education*

One of the first questions that a behavior theorist has to take a stand on is, "What is learned?" Whether the theory is about rats in a maze or children in a classroom, or both, it has to include some assumption about what it is that organisms acquire as a result of practice. The purpose of this paper is to describe an approach to one aspect of this question which, although based on research with rats, has implications for education.

The familiar controversy over what is learned has focused on the essential nature of learning. Do organisms acquire cognitive maps of the environment and the relationships within it? Do they acquire information that reduces uncertainty about the world? Are perceptions transformed by learning into good Gestalts? Or are responses connected to stimuli? A generation of research and debate has failed to produce unanimity on this issue. This paper has been cast in the stimulus-response mold but the argument could as well be made in other terms.

* Based upon a talk to the Conference on Theory for the New Media in Education on March 12, 1962. The Conference was sponsored by Michigan State University in cooperation with the United States Office of Education, Department of Health, Education, and Welfare. Claude E. Buxton made valuable comments about an earlier draft.

A somewhat different aspect of the question, "What is learned?" concerns the content rather than the nature of learning. A cognitive theorist, for example, must specify the clarity with which different aspects of the environment become assimilated. Similarly, an S-R theorist must identify the stimuli to which the response is attached and must specify the scope of the response. That is to say, behavior is a conglomerate of actions that typically occurs in a complex stimulus situation and the theory must describe the connections that are formed among the elements by the process of learning. The particular aspect of this question on the content of learning with which this paper is concerned is the speed of the response. The critical feature of the approach being described is the assumption that speed is part of what gets learned. This *micromolar approach* asserts that organisms not only learn what to do but also how fast to do it, that performance speed depends on how fast the organism has practiced as well as on how long he has practiced.

Before considering human learning, perhaps the distinction should be described briefly in the context of laboratory work with rats. Most behavior theories are molar in the sense that qualitatively (topographically) different behaviors that have the same consequences are aggregated into a single response concept. For example, molar theories about a rat learning a maze are indifferent to the molecular details of the muscle activity involved in getting to the goal. The conventional approach (e.g., Guthrie, 1935; Hull, 1943) is to treat quantitative variations (e.g., speed and amplitude) as reflections of the strength of the molar response. Specifically, the rat's speed of running in a maze is presumed to depend jointly on how well the rat knows the maze and on the prevailing motive-incentive conditions.

The present approach is also molar in that behaviors are aggregated according to their effects, but may be termed micro in that quantitative variations are viewed as part of the defining characteristics of the response. That is to say, a fast response, rather than indicating better learning or higher motivation, is conceived of as a different response from a slow one. The rat's speed of running in a maze thus results from a selection process determined jointly by how well the rat knows how to run fast or slowly, and by the relative reinforcement given fast and slow responses.

One implication of the micromolar approach was tested by reversing the normal contingencies in a maze. The rat typically gets the reward sooner if he runs faster, but a delay was imposed such that he had to wait for his food if he ran too fast. Under these conditions, rats learned to run slowly. To control for the fact that reward was sometimes delayed in this condition, and therefore the rats might be running slowly because the incentive was weak, other rats were given matched sequences of delayed rewards regardless of their speeds. These control rats continued to run fast. Hence, the important

factor in determining the rat's speed of running was not simply what reward was received, but how the reward was correlated with speed. This suggests that different speeds are different responses with reward acting not generally on the molar response of running, but specifically on the micromolar response of running at the particular speed that produced the reward.

Detailed descriptions of this research program and the micromolar theory are available elsewhere (Logan, 1956, 1960). The results provide general support for the micromolar conception of the running behavior of rats. It might also be noted that Ferster and Skinner (1957) have proposed a similar account of the key-pecking behavior of pigeons, and Spence (1956) has entertained a related hypothesis for classical human eyelid conditioning. However, the possible general applicability of this approach to more complex areas such as education cannot be properly evaluated without rigorous research within the educational context. It is hoped that the following analogies, anecdotes, and miniature experiment will help justify such research.

Consider substituting for the rat's response of running in the above analysis, a child's response of adding. This latter concept is a molar one in that the teacher is not so much interested in the muscular activity of the indicator response as in whether the response is correct. The conventional theory says that a child learns to add and that his speed of adding will depend on how much he practiced adding and on how strongly he is motivated to add. The micromolar theory assumes that a child learns to add at a particular speed and that his speed of adding will depend on the speed at which he practiced and on how strongly the conditions differentially reward adding fast. An analogous experiment would be expected to show that, if two comparable children spend the same total amount of time practicing adding, and receive the same total amount of reinforcement for doing so, that child will add the faster whose rewards have been correlated with his speed so as to induce him to practice fast. Hence, a teacher who admonishes a student to add slowly in order to avoid making mistakes or to be neat may at that time be teaching the student to be a slow adder. Similarly, a teaching machine that lets a student practice adding at his own pace may strengthen slow responses rather than train optimal performance. In general, the micromolar position that students not only learn what to do, but also how fast to do it, implies that educational programs geared principally to the former aspect of learning may inadvertently train the latter aspect poorly.

Any useful theory of learning should be consistent with what good teachers have themselves discovered in practice, and many educators are already aware that speed not only can be taught but has to be taught. Teachers of typing and similar skills recognize the importance of teaching speed. The speed reading programs at most colleges and secondary schools provide clear

testimony to an awareness that people do not learn to read fast just by reading. But there is little effort to provide remedial programs for the slow 'riter and slow 'rithmeticker, nor are there conspicuous attempts to devise methods of initial teaching that incorporate the idea that speed is part of what is being learned. This suggests that educators have recognized the inadequacy of the conventional view of speed in some isolated areas, but have not yet explored the possible general applicability of a micromolar approach to all aspects of education. Doing so may encourage somewhat greater attention to the quantitative properties of behavior than appears currently to be practiced.

There are several informal observations of human behavior which are at least consistent with the micromolar approach. Almost no one can unhaptily recite the words of the "Star Spangled Banner" as poetry. This fact that knowledge tends to be confined to the way it was learned can be dramatically, and often amusingly, illustrated by challenging a group to perform any well-known verbal material at an unaccustomed rhythm. Most skills are learned slowly and are difficult to perform fast, but skills such as swimming are typically learned fast and are then difficult to perform slowly. The imperfect correlation between scores on a speed test and a comparable power test testifies to the difference between knowing an answer and being able to produce it quickly. The familiar plateau in a learning curve is possibly produced by a change in emphasis from accuracy to speed. In all kinds of behavior, there is a clear tendency to settle into an habitual tempo.

One interesting fact that may reveal that speed is selectively learned is the positive relationship between input and output speeds. If a person is asked to say verbal material presented to him orally he will tend to mimic the speed at which the material is read. In order to see whether such mimicry results from an assumed set to repeat all details or whether it indeed indicates that the material is known best at the input speed, an undergraduate class ran the following miniature experiment. Thirty-two lists of eight numbers were recorded on tape in time with audible clicks of a metronome; this input speed was one-per-second for half the lists and two-per-second for the other half. Subjects were instructed to try to repeat the numbers of each list in the order heard, keeping in time with the recorded clicks of the metronome beginning two seconds later. This output speed was half the time the same as the input speed and half the time it was the other speed. Thirty-two subjects were given eight lists at each of the four combinations of input and output speeds. The order, which was the same for all subjects, was irregular with respect to input-output speeds and, although there was some general improvement from first to last half, this was not differential for the different conditions. The simplest micromolar prediction is that performance will be better if the required output speed is the same as the input speed.

However, subjects could be expected to fail difficult lists even when output speed is the same as input speed, and to pass easy lists even when the speeds are different. In spite of this equalizing influence, a statistically significant difference ($p < .02$) was obtained, subjects getting 53.5% of the lists correct when the input and output speeds were the same and 49.5% of the lists correct when they were different. This absolute difference of 4% means that 7.5% of what was learned was lost by a slight change in speed. Therefore, the results support the micromolar contention that students not only tend to repeat information at the same speed as it was received, but do poorer if required to perform at a different speed. Learning, in short, tends to be restricted to practice speed.

These findings can be rationalized by the micromolar assumptions illustrated in Fig. 1. The line labeled "difficulty" indicates the assumption that fast responses are more difficult to perform than slow responses; that is to say, for the same level of learning, performance is poorer the faster the required

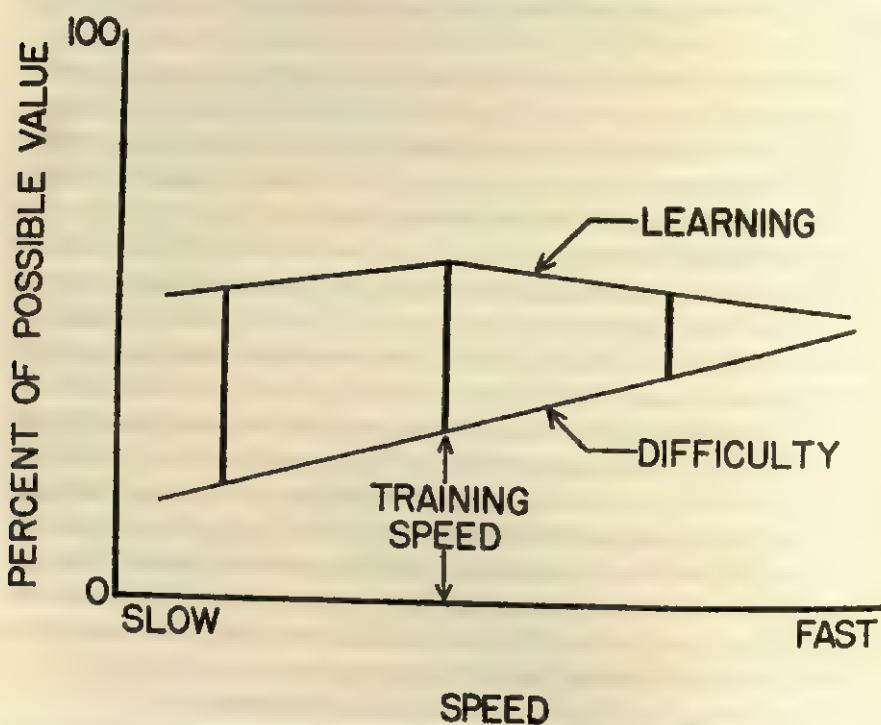


FIG. 1. Graphic illustration of the micromolar assumption that learning tends to be restricted to practice speed but generalizes to similar speeds. Expected performance at any speed depends upon the difference between the level of learning and the level of difficulty at that speed and is represented by the heavy vertical bars between the lines. Note that there are no units specified along the baseline and hence the straight lines are used only for purposes of illustration.

response. The line labeled "learning" indicates the assumption that learning is optimum at the speed at which training is given, but that there is some generalization to other speeds. This is the point that separates micromolar from the classical molar theories, the latter assuming that learning is the same for all speeds regardless of practice speed. Finally, the assumption that performance at any speed depends on the difference between the level of learning and the level of difficulty at that speed is shown by the heavy bars between the lines. A subject trained at an intermediate speed and tested at a faster speed suffers both because some learning is lost due to the change in speed and because the response is more difficult. When tested at a slower speed, however, these factors work in opposite directions because the shift in speed produces some loss in learning but also some gain, since the response is easier. These assumptions provide a simple model that correctly implies that performance depends on both input (practice) and output (performance) speeds.

In this model, the distinction between learning and performance is critical. It is generally recognized that performance depends on various motivational factors in addition to learning: a slow response may result from low learning or low motivation. In a micromolar theory, learning refers to how well the response is known at any particular speed: a slow response may mean high learning and high motivation if a slow response has been well learned. Hence, a response may be slow at first because of low motivation and then remain slow even after motivation is raised because the slow response was learned.

The micromolar approach raises an important practical problem: what is the best training schedule to follow when trying to produce fast responses? There is no special problem if learning is the same regardless of practice speed, but if learning tends to be restricted to practice speed, it makes a difference how fast one practices. The micromolar assumptions presented in Fig. 1 recognize two opposing factors in this matter: practicing slow may produce more rapid learning because slow responses are easier than fast ones, but part of what is learned from slow practice will be lost when the speed is increased. It is also possible that the relative amount of generalization may diminish with training, so that it is easier to transfer from slow to fast responses before the former have been overlearned. In any event, slow practice is preferable to fast practice only so long as enough more is being learned at the slow speed to offset the decrement produced by a shift to a faster speed and to compensate for the fact that slow practice takes longer per trial. Specifically, for example, if one slow trial eliminates half the errors, and if half of this learning is lost when the speed is doubled, then it would be better to begin directly at the faster speed if two trials at that speed eliminate more than a quarter of the errors.

Actually to apply this approach requires knowing the relative rates of learning at the different speeds and the degree to which learning generalizes from one speed to another; a few preliminary trials may provide enough data to estimate these for any specific individual and task. Schedules that gradually increase speed or that vary speed from trial to trial may minimize the generalization decrement. Hopefully, systematic research will reveal a reasonably compact set of rules that can guide decisions about the optimal program for training fast responses in a wide range of tasks.

The question, "What is learned?" should really be considered in relation to the question, "What should be learned?" when dealing with a practical matter such as education. It is not always the case that the faster the response the better. Talking, for example, is a response that should not be made as fast as possible. Athletic and musical skills require adjusting speed to various levels depending on the demands of the particular situation. Science laboratory tasks may require slow behavior while physico-chemical processes take place. It would be maladaptive in these situations if responses were necessarily made faster the better they were learned. A micromolar approach, since it treats speed as a part of what gets learned, is uniquely capable of accounting for familiar adjustment where optimal behavior is at slow or intermediate speeds.

When the optimal behavior is fast, there may be techniques that will increase the transfer from slow to fast responses. One possibility is suggested by the hypothesis that the amount of generalization from one response to another depends upon the similarity in the feedback they produce. Any learnable response generates distinctive proprioceptive and kinesthetic cues and also characteristic response-produced external stimuli, e.g., a person feels his arm and fingers move while he is writing and also sees the symbols appearing on the page before him. These feedback cues typically vary with speed and the generalization from the slow to the fast response should be increased by making the feedback from the former as similar as possible to that from the latter. For example, slow writing with exaggerated wrist movements might be most similar to fast writing with normal movements. Reducing external visual feedback would increase dependence on less discriminable proprioceptive feedback. Such techniques would make the original learning more difficult but might also produce a compensating increase in the generalizability from one speed to another. Any procedures that make slow responses feel like fast ones should facilitate the transfer from original slow practice to subsequent fast performance.

It must be reemphasized that the notion that feedback is the basis for transfer and the general proposition that a micromolar approach is applicable to education are speculative and require testing in a classroom context. Fur-

thermore, the present emphasis on practice speed is certainly not to deny the importance of motivational and personality variables in human learning. But if the micromolar thesis is indeed true in general, the common belief that haste makes waste in everyday behavior would be modified to recognize that haste makes waste only when a person tries to perform a fast response in which he has only had slow practice. The real long-term waste-maker is performing at the slow speeds that were learned from those parents and teachers who believed that the important thing was to teach what to do, and that children would then just naturally go on to perform as fast as they could. The micromolar thesis is that this is not true, that speed is inevitably part of what gets learned, and that this fact should be taken into account when preparing educational programs.

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In this article an economist proposes a detailed plan of federal government loans to assist college students in which virtually no burden would be imposed upon the taxpayers. The program would be financially sustained by the recipients of the loans themselves, who would repay according to their ability to do so.

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Long-Term Student Loans

A PROGRAM FOR REPAYMENT ACCORDING TO "ABILITY TO PAY"

Though not usually expressed in these terms, a principal shortcoming of long-term student loans is that the loans extended under these programs saddle the borrowers with repayment obligations whose dollar amount and whose periodic payments are in no necessary way related to the borrowers' ability to pay. A program which would waive the repayment obligation for those borrowers without ability to repay, and would make up the losses on these loans by extra charges against other borrowers with such ability to repay, eliminates the first part of this shortcoming. A program which would gear the amount of periodic repayment due from each borrower on his loan balance to that borrower's ability to make payment in that period eliminates the second part of this shortcoming. Although other shortcomings remain, to eliminate this one is to take a major part of the sting out of long-term student loans.

This paper outlines the features of a public program designed to meet the above and some other shortcomings of student loans under present programs, both public, such as that of the National Defense Education Act, and private, such as those sponsored by colleges individually or in cooperation with non-profit organizations such as United Student Aid Funds. Although the program here proposed is in certain fundamentals no different from those now in operation, it is novel in that it ties the amount and the rate of repayment of each student loan to the particular borrower's ability to pay as measured by his

income over the years of repayment. Equally important, this novelty is introduced without burdening the federal government, its sponsor by the nature of the program, with other than minor costs in the long run. Also important, in view of the fears of growing federal control over higher education, the federal government appears only in the limited role of financial sponsor, and, regardless of the scope of the program, not in any necessary way as a controller or regulator of colleges and universities or of the students who are there by virtue of loans extended by the federal government.

THE NEED FOR STUDENT LOANS

The argument in favor of a massive student loan program, especially one with the untried and untested features of that to be outlined, should be preceded by an argument showing that the orthodox methods of financing higher education are now inadequate and/or will be inadequate in the years ahead. While this is beyond the scope of this paper, the steps by which one is led to postulate a need for a large scale loan program can be enumerated: (1) Given the sources of income to colleges and universities—(a) tuition and other student charges, (b) public funds, (c) private gifts, and (d) investment income—a realistic look to the future rules out reliance upon private gifts and investment income for the additional income needed to finance higher education as a whole, although for a handful of wealthy schools these two sources supplemented by moderate tuition increases may be adequate. (2) Given the likelihood that the flow of public funds will not be sufficient to permit growth and improvement of facilities and faculties at a satisfactory rate, higher tuition charges remain as the only practical alternative, especially for private schools. (3) Since ever higher tuition charges must necessarily exclude more and more qualified students from the schools, this becomes a socially acceptable alternative only if these students are enabled to finance higher tuition charges and other costs of education, in whole or in part, by borrowing against future income. (4) If such long term loans are made available to qualified students on economically manageable terms, the schools may at once secure part of needed additional revenue through higher tuition charges and qualified students will not be excluded from the schools by these higher charges.

In oversimplified form, this is the sequence that leads one to inquire into the merits of a large scale student loan program. Of course, many persons will immediately dismiss any such program. They see the burden of financing higher education as one which should fall increasingly upon society at large and should accordingly be met increasingly out of tax revenues. Higher education is seen as a simple extension of primary and secondary public education which are almost entirely tax-financed. Society is a beneficiary of the ex-

tension of higher education to more and more qualified high school graduates and as such it should be prepared to shoulder more and more of the burden of the cost.¹

It is difficult to dispute these and other arguments which could be marshalled in support of this position. But it seems equally difficult to dispute the argument that state and federal funds are not likely to flow to the public and especially to the private colleges and universities on the scale needed to provide the quantity and quality of higher education that these same people want.² Political realities must be recognized—those who control the purse strings in the federal and in many state governments are not likely to move toward this position soon enough or far enough to meet the critical needs of the years ahead. Beyond the collection of more taxes and the appropriation of the same are all the thorny problems of the distribution and appropriate uses of public funds, especially in the case of federal funds distributed to private schools.

THE BURDEN OF STUDENT LOANS

The program to be outlined is one which would place a larger share of the ultimate cost of financing higher education upon the students themselves as direct beneficiaries of their higher education. Whatever may be the division of benefits between society and college graduates as a part of that society, the foundation of the program is that long-term loans to qualified students are "self-liquidating." This is to say that the life-time earnings of the graduates will, on the average, be greater than otherwise by some multiple of the share of the total costs of the educational services carried by the students.

If this is indeed the relationship, and data given below suggest that it is, then the apparent burden of debt incurred by the student to finance his college education turns out to be no real burden at all. This conclusion necessarily follows only if the alternative, as it may well be in the years ahead, is that the student must forego a college education altogether. If one chooses

¹ In recent years, new arguments supporting the thesis of social benefit have been added to the old—the struggle for national survival with communism in which the quantity and quality of higher education is a factor which will influence the outcome; the shift in emphasis from "tangible capital" (machines, factories) to "human capital" (knowledge, training, inventiveness); "automation" and "hard core" unemployment concentrated among the unskilled and the uneducated.

² The issue here is not the advantages or disadvantages of increased reliance upon public funds, for the position taken is that such funds will not be made available in the quantity needed soon enough. Among the possible disadvantages of public funds, one in particular should be mentioned, for the program here proposed would move in the direction of correcting it. This is the elimination or reduction of subsidies to college students who by reason of their parents' incomes and wealth are not in need of subsidies. These parents can afford to pay a larger share of the costs of their children's higher education but are now spared this expense by its being covered out of public funds.

to make the unrealistic comparison between the case in which the student incurs debt to finance his education and the case in which public funds flow to the schools in volume sufficient to hold down direct charges to students so that they need incur no debt, then the former case compared with the latter does, of course, represent a burden to the student. However, in the belief that public funds will not be forthcoming in this volume, the meaningful comparison for many high school graduates may be that between debt-financed college education or no college education at all. It is in this comparison that the apparent debt burden may turn out to be no real burden at all.³

The question of burden becomes especially significant when one notes what may be called a perverse effect of the program. To the extent that the program leads to increases in tuition charges more rapid and greater than would otherwise have occurred (and this is definitely expected), the perversity appears in the fact that the program itself will force students to seek loans who in the absence of the program would have been able to pay their way independently under a system of lower tuition charges (assuming again that they would be among the fortunate ones admitted to a college as supply and demand become more unbalanced in the years ahead). To some this will appear as a pernicious feature, but it is inevitable in an approach which would rely more heavily upon tuition charges to finance higher education. The amount of indebtedness incurred by those students who previously were at the margin would necessarily be relatively small, and the objective of providing a college education to those who in the absence of loan funds would have no hope at all will be served.

With respect to the question of the possible burden of debt incurred by the student and the related question of whether or not such debt is "self-liquidating," several further questions must be raised. How do the life-time earnings of the average college graduate compare with those of the average high school graduate? Do the former's earnings exceed the latter's by an amount which would induce him to incur sizeable debt in order to secure a college education? To the extent that the high school graduate is motivated solely by income considerations, the spread between the two would appear to offer more than sufficient inducement.

One recent study shows average income from age 18 to death for the male high school graduate as \$257,557 and for the male college graduate \$435,242 (or 70 per cent greater). These figures are based on data for 1958. For 1949 the

³ Among other objections one may raise at this point is that the argument here is in terms of averages and does not rule out that debt-financed college education may be a real burden to the many students whose life time earnings fall far below average. Among the details of the program is one which waives repayment for those whose income is less than a specified amount.

respective figures are \$185,279 and \$296,377 (60 per cent greater for the college graduate).⁴ For male high school graduates of 25 years and older, the figure for average annual income is \$5,567, and for college graduates it is \$9,206 (65 per cent greater). For 1949 the figures are respectively \$3,784 and \$6,179 (63 per cent greater for the college graduate).⁵

If the major part of the difference in life-time earnings between the average high school graduate and the average college graduate can be attributed to the difference in educational attainment, on purely financial grounds the average student who incurs a debt of say \$5,000 or even \$10,000 during four years in college would not be subject to a real burden, if the debt is repaid with interest out of the enlarged earnings received over the first ten or more years of employment following graduation. Again, the concept of real burden here assumes that the alternative would be the failure to secure a college education at all.

While this conclusion seems to follow easily from the data given above, it has, of course, slipped in the assumption that future decades will show a continuation of the relationship observed in the past. Will not one effect of a huge loan program that opens up to more and more high school graduates the opportunity of securing a college education increase the supply of college graduates relative to the supply of high school graduates so as to gradually eat away the substantial differential in earnings of the two groups? Seymour E. Harris in 1949 suggested the possibility that ". . . college students within the next twenty years are doomed to disappointment after graduation, as the number of coveted openings will be substantially less than the numbers seeking them."⁶ That these forebodings expressed in the nineteen-forties did not come to pass in the 'fifties or so far in the 'sixties may be due in large part to unforeseen changes in demand. The increased demand for skilled and educated persons in most branches of industry has followed rapid technological changes throughout the economy. It is this development which has in large part offset the predicted tendency of the income differential between the two groups to decrease over the past years.

Looking ahead over the period of the next few decades, the period appropriate to a long-term loan program, one can say little with certainty, for the differentials of the past twenty years may widen even more or they may nar-

⁴ H. P. Miller, "Annual and Lifetime Income in Relation to Education: 1939-1959," *American Economic Review*, December 1960, p. 967. These figures do not mean that the differences cited are exclusively the result of the difference in educational attainment. The higher earnings of those with college degrees may in part be the result of differences in intelligence and other individual differences in ability and opportunity.

⁵ *Ibid.*, p. 981.

⁶ Seymour E. Harris, *The Market for College Graduates* (Cambridge: Harvard University Press, 1949), p. 64.

row. But even if the differentials should narrow, they will certainly not be eradicated. It seems reasonable to conclude that they may become much narrower than those of today before they eliminate monetary gain to a student who chooses to incur debt now in order to gain a college education, rather than to avoid debt now and forego a college education.

It is on the assumption that the income differentials observed over past decades will remain appreciable over the decades ahead, that a massive student loan program, in one sense, stands or falls. Assuming the continuation of appreciable income differentials and given a system of annual loan repayments geared to the individual borrower's annual income, the program is submitted as one which will be "self-liquidating" for the average participating student, one that will neither impose a real burden upon him nor upon the government that sponsors it.⁷

In the pages which follow, the person is described in sufficient detail to permit the reader to evaluate its potential for achieving its objective—namely, to make available to all academically qualified students, regardless of their financial resources, the opportunity for a college education. What is novel in the program is found in the special arrangements for student loan repayments, and major attention is paid to these aspects. However, to put them into perspective, brief consideration must be given to several other aspects. The essentials of the program are presented below under the following headings: (A) Student Eligibility, (B) Loan Repayments, and (C) Government Costs. Under each of these headings, there appears to be no limit to the number of questions which call out for discussion. To try to limit the text to the essence of the program, footnotes are freely used to cover a few of these many questions. The reader interested only in the gist of the program can disregard all of the footnotes which follow.

A. STUDENT ELIGIBILITY

Who would be eligible for loans? At the outset, it may be noted that the ticklish, administratively difficult problem of eligibility according to *need* is avoided as there would be no needs test for eligibility. The applicant of unlimited means would be as eligible as the applicant of no means, other things being equal. However, as will be seen in Part B, the loan repayment provisions are such as automatically to exclude as loan applicants those students who are able to meet college costs through independent means and to reduce

⁷ A case could readily be built for a modified version of the program, even if one assumed that it would not be "self-liquidating" in the sense described. To do this requires resort to considerations of non-monetary, social, and private benefits, to a real burden upon either or both the average participating student and the sponsoring government, the latter feature detracting from whatever appeal such a program might otherwise have.

to a minimum the amount of loan to those who can meet part of their college costs independently. The special characteristics of the repayment provisions are designed to limit applicants essentially to those for whom loans constitute the difference between attending and not attending college.

Among those who apply, who will be accepted and who will be rejected? Although the program would be administered by a government agency, this agency need neither lay down minimum eligibility requirements nor pass upon each applicant's eligibility under these requirements. Both of these functions could be left in the hands of the colleges and universities, thereby avoiding even this degree of interference with higher education by the federal government.

Eligibility, as here used, is eligibility for loan funds only. A student who is eligible for loan funds is, of course, not thereby automatically eligible to enter the school of his choice. A certificate of loan eligibility issued to the student will be evidence only of forthcoming financial means sufficient to carry him through his program. Gaining admission to a particular school is a step completely apart from gaining eligibility under the loan program. The separation of these two steps again means a separation between the independently established policies and practices of the nation's colleges and universities and the policies and practices of the government loan program.

Whereas eligibility in the typical case is for a four year period, the continuation of periodic payments of loan funds to each student would rest upon his meeting prescribed standards of performance. The standards might simply be those of the college itself; this would certainly be the easiest approach administratively. In this case, a student who failed to meet the standards of the college in which he originally enrolled would have the option of transferring to another college with lower standards. The repeated exercise of this option would have to be limited to prevent abuses. If uniform standards were established for all covered students, then any student who failed to meet such standards would lose his eligibility for further loan funds, which in most cases would mean the termination of his college studies. The obligation of repayment to the federal government of whatever sum was borrowed during the period of his college studies, whether completed or not, would commence with his earning of income and is discussed in Part B.

Related to eligibility for loan funds is the question of the maximum amount of loan funds for which any approved applicant may be eligible. It was implicit in the foregoing that any student who was approved as eligible for loan funds would be able to secure whatever funds were necessary to carry him through his program. In practice, of course, an upper limit would have to be established for each year, and within this limit provisions would have to be included to prevent overdrawing of loan funds by qualified but financially

irresponsible students. The responsible student, counselled by parents and college advisers, would voluntarily limit himself to the minimum amount necessary. As will be seen in Part B, the repayment provisions make this advisable on purely financial grounds.

Consideration of the basis for determining the amount of loan funds to be made available to any borrower is not required for purposes of this paper. However, given adequate safeguards against abuse, the objective of the program can only be met if loan funds are made available in the amount necessary to enable any otherwise qualified student to secure the college education which would not be possible through independent sources.⁸

B. LOAN REPAYMENT

The repayment provisions are in some characteristics like those which apply to the familiar type of student loans repaid on an installment basis over an intermediate or long term period. In other characteristics, especially the determination of the amount of each installment, the repayment provisions bear no resemblance to this type of student loans. These characteristics may most simply be explained by tracing the repayment of a loan by a typical borrower, say, John Doe.

Our John Doe graduated from high school in June 1962. He had earlier applied for loan funds to carry him through four years of undergraduate study and had been approved. He entered college in September 1962 and graduated in June 1966. During each of these four years he borrowed \$1,000.00 and owed a balance, including accrued interest (at 1% per quarter) of \$4230.00 as of the end of June 1966. John Doe began full time employment in July 1966.

With exceptions to be noted below, Doe will be required to make payments each year under either or both of two rate schedules—standard and supplementary. These two parts of the payment provisions are considered separately with the standard rate schedule first.

⁸ Although it fails to meet this objective fully, a less ambitious program is one which would limit the amount of loan funds per borrower to the amount of tuition and related charges. While this would rule out those who were unable to cover other expenses through independent means, it would greatly simplify the program. First, eligibility requirements could simply be those of the school to which the student gains admission. Second, the maximum amount of loan funds per student would be equal to tuition and related charges of the school attended for the period attended. Third, the maximum amount of indebtedness incurred by any student would be held below what it might otherwise be, in turn making the repayment problem easier than otherwise. Last, government funds would not be paid to students but only to the schools in a lump sum per quarter or semester. There is much to favor a limited program of this type at the start. As kinks are worked out, it could be broadened to cover more than tuition and related charges. Since the long run objective would be this broader program, it was with this kind of program, in which uniform eligibility requirements would be desirable, that the preceding pages were concerned.

Standard Rate Schedule

What will be the amount of Doe's annual payment on his loan under this schedule? This is one instance in which repayment provisions depart completely from those which are part of any current loan program. For the minimum amount, if any, which he will be required to pay for any year will be determined by his taxable income for that year and not in any way by the amount of his outstanding balance (except in the case of that final payment which closes out his loan and in one other case noted below). His minimum annual payment is solely a function of his taxable income, rising (falling) with increases (decreases) in his taxable income. Taxable income as here used is taxable income as determined for federal personal income tax purposes.⁹

Prior to the beginning of each calendar year, the agency would make available to Doe, and each borrower, the standard rate schedule for that year; from this each of them would determine the minimum payment required for his estimated taxable income for that year. Such a schedule is given in Column 2 of Table 1. Column 3 gives the effective rate or the minimum annual payment as a percentage of the taxable income at the bottom of each bracket. (Disregard Columns 4, 5, and 6 for the moment.) The payment due, as computed under Column 2, is the minimum;¹⁰ within limits, borrowers may pay without penalty in any year an amount in excess of the minimum so computed. Payments are waived for the year if the taxable income is below a set level (in Table 1, taxable income not over \$4000). To minimize the burden on such low income borrowers, it would also be desirable to waive interest for that year.

An original standard rate schedule similar to that in Column 2 will be

⁹ Instead of taxable income, the base upon which minimum annual payment is determined could be adjusted gross income, also as defined for federal tax purposes, or yet some other base. Taxable income has been here suggested, since it is recognized as a better indicator of ability to pay than adjusted gross income. However, other factors enter in and a specially designed base might be found best.

¹⁰ In one case only, the amount here computed would not be the minimum. If the amount of interest which accrues for the year on the January 1 balance of any loan is greater than the minimum payment indicated by the schedule, then the minimum amount due for the year is the amount of accrued interest for that year. This exception appears necessary to prevent a borrower's balance from growing larger and larger, despite the fact that he makes the minimum annual payment indicated by the rate schedule for his taxable income. For example, assume a balance including interest of \$6000 as of January 1. With interest at 1% per quarter, interest on this balance for the year, if interest alone is paid each quarter, will be \$240. A borrower with taxable income of only \$5000 would under the rate schedule be subject to a minimum annual payment of \$165. Accordingly, under this rule his minimum payment for the year will be not \$165 but \$240, an amount just sufficient to prevent his balance from growing larger during the year. Apart from this one exception, the borrower's minimum annual payment is determined solely by his taxable income for each year up to the year in which final payment is made on his loan.

TABLE I
Minimum Annual Payment on Student Loans, by Income Class

Taxable Income (1)	Standard Rate Schedule ¹ (2)	Effective Standard Rate ² (3)	Supplementary Rate Schedule ¹ (4)	Supplementary Rate ² (5)	Effective Supplementary Rate ² (6)	Combined Effective Rate ² (6)
Not over \$4000	\$00	0.00%	\$00	0.00%	0.00%	0.00%
Over But not over						
\$4000	\$4500	\$90 plus 5%	2.25%	\$00	0.00%	2.25%
\$4500	\$5000	\$115 plus 10%	2.55%	\$00	0.00%	2.55%
\$5000	\$5500	\$165 plus 15%	3.30%	\$00	0.00%	3.30%
\$5500	\$6000	\$240 plus 20%	4.36%	\$10 plus 2%	0.18%	4.54%
\$6000	\$6500	\$340 plus 25%	5.80%	\$20 plus 3%	0.38%	6.18%
\$6500	\$7000	\$465 plus 30%	7.15%	\$35 plus 4%	0.54%	7.69%
\$7000	\$7500	\$615 plus 35%	8.78%	\$55 plus 5%	0.79%	9.57%
\$7500	\$8000	\$790 plus 40%	10.53%	\$80 plus 6%	1.01%	11.54%
\$8000	\$9000	\$990 plus 45%	12.37%	\$110 plus 7%	1.38%	13.75%
\$9000	\$10000	\$1440 plus 50%	16.00%	\$180 plus 8%	2.00%	18.00%
\$10000	\$1940 plus 55%	19.40%	\$260 plus 10%	2.60%	22.00%

¹ Dollar amount is amount at bottom of income class; apply percentage figure to amount by which taxable income exceeds that at bottom of income class.

² Effective rates are based on taxable income at bottom of each income class.

required at the inception of the program. This will be a *maximum* schedule in the sense that it is subject to annual or less frequent revisions *downward* but not *upward*. Revisions will adjust to the upward shift over time in the distribution of income by income class. The maximum rate applicable to each and every income class would thus originally be set conservatively at the level deemed necessary for the indefinite future; the intent is that the actual rates in any year would be below these. Each prospective borrower will know from this maximum schedule the maximum percentage of any level of taxable income which will be called for in repayment of his loan under the standard rates for each year of the future during which income may be earned and a loan balance may remain.¹¹

To trace John Doe's repayment of principal and interest, for simplicity assume that the rate schedule of Column 2 is in effect and remains unchanged over the years and that Doe chooses to pay in each year the minimum required by his taxable income. Assume that Doe receives a starting salary of \$6500 per year (the year is 1966) and that he has income from no other source. For the first six months of employment, July through December, his gross income is \$3250 and his taxable income is, say, \$2250. Since taxable income not over \$4000 per year is exempt, Doe would be liable for no payment for 1966. Assume that a salary increase in January 1967 raises his estimated taxable income for 1967 to \$5250. His minimum payment is then \$202.50 for 1967, payable in quarterly installments of \$52.63 on January 15, April 15, July 15, and October 15. On or before April 15, 1968 (to correspond with the final date for filing personal income tax returns), Doe will file an annual return with the agency, enclosing underpayment (he underestimated taxable income) or requesting credit for overpayment (he overestimated taxable income and wishes to pay only the minimum required). This is the procedure that will be followed by Doe and every other borrower for each year during which a loan balance remains.

On the assumption that Doe's taxable income increases by \$250 per year for the next ten years, the original sum of \$4000 borrowed during the years in college will be paid off in eleven years.¹² The repayment history of Doe's loan

¹¹ Since it will set forth the maximum standard rates to which any borrower's income will be exposed for the indefinite future, the actual determination of this original schedule would require considerable study. The schedule of Column 2 does not purport to be any such schedule but is for illustrative purposes only.

¹² On the assumption that Doe's taxable income remains at or near \$5250 for each year, the minimum annual payment required on his loan will be little more than the amount of interest accruing each year. If Doe chooses to pay no more than the minimum and the rate schedule remains unchanged, Doe will pay on his loan for his full working life and a sizeable balance will remain unpaid at his retirement. To avoid the inequity that this possibility introduces, a cutoff date, say twenty years after the beginning of full-time employment, might be needed. For under the assumptions as given Doe would pay \$202.50 each year for

is shown in Table 2. (For brevity, figures are given annually rather than quarterly; disregard Columns 5, 6, and 9 through 11 for the moment.) From his first payment in January 1967 to his final payment in January 1978, Doe will have paid under the standard rates a total of \$5636.85, as given at the bottom of Column 3, \$4000 being principal and \$1636.85 being interest, as given at the bottom of Column 5. Column 8 gives the effective standard rate (payment under the standard rate schedule each year as a percentage of his taxable income in each year). This rate rises from a low of 3.9% in the first year of payments to a high of 11.5% in the final full year of payments, a higher effective rate applying to higher levels of taxable income under the progressive rate structure.

Although the figures of Table 2 are illustrative only, they do suggest certain conclusions with respect to the "burden" of the borrower's debt and its "self-liquidating" nature. One might argue that Doe's taxable income in each year, Column 7, is higher than it would be in the absence of a college education by at least the amount of his payments in Column 3, under the standard rates. If such is the case, the debt is "self-liquidating" and free of "burden." If Doe had borrowed \$8000 instead of \$4000, the payments in Column 3 and the effective standard rates in Column 8 would be exactly as given. The only difference would be a longer time period for repayment. If there were no "burden" with the \$4000 debt, there would be none with an \$8000 debt. If however, Doe's income were to start at a lower level and/or rise at a lower rate over the years, this would show up in taxable income, Column 7, and would produce smaller payments in Column 3 and lower effective rates in Column 8. Lower income and lower payments again suggest that the debt is free of "burden," again on the assumption that Doe's income, however low, is greater by the amount of his payments under the standard rates than it would have been without a college education.

As is done in Table 2, we could develop in detail representative repayment histories under the standard rate schedule for larger and smaller loans extended to borrowers who show larger or smaller taxable incomes over the repayment years under standard rate schedules which are higher or lower than Column 2 of Table 1 or which rise or fall from one year to the next. These histories would add nothing in principle but show only the wide variation in results possible under different assumptions. The history of John

forty or more years; for forty years this would be a total of over \$8,000 on his original loan of \$4,000. If, however, Doe's income were to rise year after year, the loan would be repaid in full and the total amount paid would be substantially smaller. Since the program is based on ability to pay, such perverse long-run (but not short-run) effects are introduced in the absence of a cut-off date. And this in itself probably makes such a cutoff date mandatory.

TABLE 2
Repayment History of Student Loan to John Doe

Year (1)	Balance at Beginning of Year (2)	Payment under Standard Rates (3)	Balance less Payment (4)	Interest for Year (5)	Supple- mentary Rates (6)	Taxable Income (7)	Effective Standard Rate (8)	Effective Supple- mentary Rate (9)	Total Payment (10)	Total or Combined Effective Rate (11)
1966*	\$4230.00	—	\$4230.00	\$85.02	—	\$2250.00	0.0%	0.0%	—	0.0%
1967	4315.02	\$202.50	4112.52	170.08	—	5250.00	3.9	0.0	\$202.50	3.9
1968	4282.60	240.00	4042.60	167.84	—	5500.00	4.4	0.0	240.00	4.4
1969	4210.44	277.50	3932.94	163.95	\$15.00	5750.00	4.8	0.3	292.50	5.1
1970	4096.89	340.00	3756.89	157.77	20.00	6000.00	5.8	0.3	360.00	6.0
1971	3914.66	402.50	3512.16	148.79	27.50	6250.00	6.4	0.4	430.00	6.9
1972	3660.95	465.00	3195.95	136.91	35.00	6500.00	7.2	0.5	500.00	7.7
1973	3332.86	540.00	2792.86	121.70	45.00	6750.00	8.0	0.7	585.00	8.7
1974	2914.56	615.00	2299.56	102.82	55.00	7000.00	8.9	0.8	670.00	9.6
1975	2402.38	702.50	1699.88	79.81	67.50	7250.00	9.7	0.9	770.00	10.6
1976	1779.69	790.00	989.69	52.32	80.00	7500.00	10.5	1.0	870.00	11.6
1977	1042.01	890.00	152.01	19.84	95.00	7750.00	11.5	1.2	985.00	12.7
1978	171.85	171.85	0.00	0.00	17.85 ^b	8000.00	2.15	0.2	189.20	2.86
					<u>1406.85</u>	230.00 ^c				
					<u>1636.85</u>		<u>457.35</u>		<u>6094.20</u>	
					<u>5636.85</u>					

* Beginning of year in this illustration is 7/1/66 or first month following termination of receipt of loan funds by borrower; balance of \$4230 then owed made up of principal of \$4000 borrowed over four years plus accrued interest through 6/30/66 of \$230.

^a See footnote 15 for method of calculating this figure.

^b See footnote ^a above for explanation of this figure.

^c See Column 3 computed from Table 1, Column 2; Column 6 computed from Table 1, Column 4. Interest in Column 5 computed at 1% per quarter on balance (not here shown on quarterly basis) in Column 4. Column 8 equals Column 3 divided by Column 7; Column 9 equals Column 6 divided by Column 7. Column 10 is sum of Columns 3 and 6.

Doe is sufficient to illustrate the straightforward repayment provisions under the standard rate schedule.

Supplementary Rate Schedule

The rate at which any individual loan is repaid under the standard rate schedule is determined by the borrower's ability to pay, accepting taxable income as a measure of ability to pay. From this it is apparent that some loans will never be repaid in full and that some will never be repaid even in part.¹³ It is in order to cover the losses on these loans that a supplementary rate schedule is made part of the program. Rates under this schedule, also based upon taxable income, are *in addition* to the standard rates imposed upon taxable income. They differ from the standard rates in that the balance owed by any borrower is not credited for any funds paid under the supplementary rates. This means that the sums collected by the agency under these rates are available to cover losses on unpaid loans.¹⁴

Since the heart of the payment provisions is ability to pay, the supplementary rate schedule is progressive, as is the standard rate schedule. As shown in Column 4 of Table 1, supplementary rates do not apply to borrowers with taxable incomes below a specified level but do apply above this level at a progressive rate. In the illustrative schedule of Column 4, the supplementary rate first applies at taxable income of \$5500, so that a borrower with this income would pay under the supplementary rate \$10 or 0.18% of his taxable income for the year. A borrower with taxable income of \$10,000 would pay \$260 or 2.60% and one with taxable income of \$20,000 would pay \$1260 or 6.3%.¹⁵ Column 5 gives the effective supplementary rate for taxable income

¹³ First, total losses will be suffered on some loans since some borrowers will fail ever to earn income above the exempt level and some borrowers will die before any payments are made. Secondly, partial losses will be suffered on some loans since some borrowers will fail to earn income at a level high enough to permit total repayment before the cutoff date and since some borrowers will die before repayment is made in full. And last, there will be a group, whose size can only be learned through experience, who will in one way or another evade the payments which are due. Adequate safeguards could be introduced to hold this last group down to a minimum, some of which are indicated in Part C below.

¹⁴ The schedules of standard and supplementary rates which will produce a "break-even" result for the agency over the long-run would clearly be indeterminate at the outset. Here again, the policy would be to establish original rate schedules with sufficient margin for error and to adjust these schedules downward over time as warranted by the actual results experienced or in accordance with the amount of cost, if any, which the government might choose to absorb.

¹⁵ An adjustment in the calculation of amount due under the supplementary rate, if applicable, would be required for the year in which the final installment is paid on a loan. Assume the borrower has taxable income for that year of \$8000 and pays off a remaining balance of \$495 during that year. An \$8000 income is subject to a payment of \$110 under the supplementary rates. However, since the minimum payment under standard rates for this income is \$90, and since the balance owed is only \$495 (or one-half of the minimum standard payment), the amount due under the supplementary rate should also be one-half of the amount otherwise due under the supplementary rate, or should be \$55. In the

at the bottom of each bracket and Column 6 gives the combined effective standard and supplementary rates for taxable income at the bottom of each bracket. Regardless of taxable income, an upper limit of 25% or less for the combined effective rate would have to be established.

John Doe's payments under the supplementary rates are given in Column 6 of Table 2. Column 9 gives the percentage of Doe's taxable income taken by his supplementary payment in each year. Finally, Columns 10 and 11 respectively give the total payment each year and the effective rate each year for both rate schedules combined. Whereas Doe pays a total of \$5636.85 for principal and interest, he pays an additional \$457.35 under the supplementary rates. Payments under the supplementary rates are not credited against the balance owed.

As was earlier noted, each borrower would make quarterly payments under the standard rate of an amount equal to at least one-fourth of the minimum amount due for his estimated taxable income for that year. In filing his annual return with the agency on or before April 15 of the following year, the borrower will determine the amount due, if any, under the supplementary rate for his taxable income for the preceding year and will pay this amount at the time of filing.

This prospective liability for payment under the supplementary rates would, of course, have been known to each borrower at the time that he applied for loan funds.¹⁶ Presumably his need was great enough to overcome whatever deterrent this feature might have presented. Or, as he might have then viewed it, payment under the supplementary rates is no serious deterrent for it will depend upon his future income, becoming appreciable only if his income should be large, in which event he could pay it without great hardship.

It is plausible to assume that the student's reasoning will follow such lines if it is considered at the time the student is receiving loan funds rather than at the time that he is repaying these funds. Over the period of repayment, it may be expected that many of those borrowers who are fortunate enough to see their incomes rise rapidly will seek ways of avoiding the payments under the supplementary rates. The only way of their legitimately doing this would be to pay off the total balance as quickly as possible. The higher the taxable

absence of such an adjustment, a borrower with a \$20,000 taxable income and a loan balance of \$10 at the beginning of the year would conceivably pay this \$10 balance due plus a supplementary payment of \$1260. The equity of this adjustment is apparent.

¹⁶ An original supplementary rate schedule will be required at the inception of the program. Everything that was said about the original standard rate schedule applies here. The purpose of the original supplementary rate schedule, in combination with the original standard rate schedule, is to advise the prospective borrower of the maximum percentage of any possible level of future income that he will be required to pay under the two rates.

income level and the better the prospects for its rising even higher, the greater would be the monetary gain in a fast liquidation of the balance.¹⁷

As a result, in order to make the supplementary rates effectively perform their function of providing the agency with extra income from some loans to cover its losses on other loans, the repayment provisions must include penalties for repayment at a rate more rapid than that dictated by a borrower's taxable income, when that income is subject to a supplementary rate. In other words, complete escape from the supplementary rates by those subject to them must be blocked in one way or another.

This shutting off of an escape route is required for another reason. As was explained in Part A, no needs test would have to be met to win eligibility for a student loan, the nature of the repayment provisions being such as to exclude most of those not in need and to limit the amount of loan funds to others roughly to the amount actually needed. It is the supplementary rate schedule which is designed to produce this result. For if the applicant for a loan, by reason, for example, of a sizeable inheritance expected at age 21, can look forward with certainty to substantial taxable income during the early years following graduation, he may also look forward to payment of a supplementary rate on that income. Then the amount repaid will be equal to the amount borrowed plus interest on that amount *plus* some additional amount determined by the supplementary rate applicable to his income. If there is neither a limit to the amount that can be repaid in any year, nor a penalty for repayment at a rate in excess of the amount indicated by the standard rate, then such a borrower might well repay the total amount owed in the first year after graduation. He would thereby avoid almost completely the impact of a constant or even a rising supplementary rate that would apply to his income during each year that a balance remained on his loan. The possibility of such easy avoidance of the supplementary rates would be for some an invitation to seek unneeded loan funds on which the interest rate (here assumed to be 4%) would probably be lower than the rate which these per-

¹⁷ For example, consider the following not unrealistic case in which the borrower's taxable income in the first year of employment is \$6000 and in which his income rises by \$500 per year so that for the tenth year it is \$10,500. If he makes minimum payments under the standard rates and if his loan is such that it is paid off exactly in ten years, he will have paid during the ten years under the supplementary rates a total of \$1420, according to Column 4 of Table 1. If this person were permitted to pay off the full amount of his loan in the first year of his employment without penalty, assuming that the funds could be somehow secured to make this payment in full, he would pay a total of \$20 under the supplementary rates and enjoy a saving of \$1400 over the following nine years. If the supplementary rates were exactly double those given in Table 1, the amount of the savings would be correspondingly doubled or would be \$2800 over the ten years. There is clearly some level of supplementary rates at which a higher-income borrower will find it advantageous to secure, if possible, a private loan at a higher interest rate than that paid on his student loan and pay off his student loan as a means of escaping the impact of the supplementary rates.

sons could earn on the investment of their own funds. To permit such avoidance is to destroy the usefulness of the supplementary rates as a device for eliminating needs tests for eligibility and is to undermine the financial foundation of the program. Such support would depend upon receipts from the supplementary rates imposed upon those with higher taxable incomes to make up for the losses of receipts from those whose incomes remain below the exemption level under the standard rates.

One possible system of penalties to bar avoidance of the supplementary rates will be described. It is to be emphasized that, given the penalties involved, any borrower is free to make any amount of payment in any year in excess of the minimum required under the standard rates. However, by so doing he may impose upon himself the obligation to make a payment under the supplementary rates which otherwise would not be required at his income level, or he may impose upon himself a higher effective supplementary rate than would be required at his income level.

Borrowers who choose to make the minimum required payment under the standard rates will determine the amount, if any, due under the supplementary rates in the way earlier described. Borrowers who choose in any year to make more than the minimum required payment for their taxable incomes will in effect compute the amount, if any, due under the supplementary rates, as the amount which would be due from a borrower with that taxable income at which the minimum annual payment under the standard rates is the amount actually paid by the borrower who pays more than the minimum required for his taxable income.¹⁸

Although this may sound a bit involved, the rationale of this procedure for computing the penalty is quite simple. Since the amount paid under

¹⁸ Take a borrower with taxable income for the year of \$4000 which exempts him from payment for that year under both rate schedules. From the rate schedules of Table 1, this borrower could pay under the standard rates from \$0 to \$240 for the year without penalty in the form of a payment under the supplementary rates. If the same borrower should choose to pay \$340 under the standard rates for the year, this would be the minimum payment required by a borrower with taxable income of \$6000 on which income a payment of \$20 is due for the year under the supplementary rates. Our borrower with taxable income of \$4000 would then pay a total of \$360 for the year, \$340 under the standard rates and \$20 under the supplementary rates. Since this low income borrower can probably look forward to rising taxable income in the years ahead, it is clearly to his advantage to pay, if at all possible, the maximum amount free of penalty, \$240, or even something more than this, even though a larger amount is subject to a nominal penalty.

To take a higher income borrower, e.g. \$7500, his minimum payment under the standard rates is \$790 and under the supplementary rates \$80. If this borrower chooses to pay \$1440 under the standard rates, this turns out to be the minimum payment under standard rates for a borrower with taxable income of \$9000 who is required to pay on this income \$180 under supplementary rates. Our borrower accordingly would pay \$180 under supplementary rates, or \$100 more than would be the case if he had paid only the minimum amount required under standard rates for his taxable income. The \$100 is in effect what he must pay for having paid an extra \$650 under the standard rates.

standard rates depends upon ability to pay as measured by taxable income, it may be argued that, given the amount actually paid by any borrower in a given year, we may reverse the computation and go back from the payment to find the taxable income which Table 1 shows as that which would call for the payment of the amount actually paid. We accept the taxable income so found as one which indicates an ability to pay the amount actually paid. In other words, if the borrower with taxable income of \$7500 chooses to pay \$1440 under the standard rates, it is assumed that this shows an ability to pay consistent with taxable income of \$9000 per year. It is in turn assumed that he also has the ability to pay the amount given by the supplementary rate applicable to a taxable income of this amount.

It is a matter of opinion as to whether what is here called a penalty is in any real sense a penalty at all. In large part, it is a prepayment of amounts which would be due in future years under the supplementary rates which would then apply to the borrower's income. There is a penalty only to the extent that the amounts paid under accelerated repayment produce a cumulated total of payments under the supplementary rates greater than the total which would be imposed under minimum required payments. (There is also a small but clear penalty to the extent that there is a loss of interest to the borrower on these amounts prepaid; there is also a small but clear penalty to the extent that these amounts will be more valuable as tax deductions in later years when taxable income is higher.)

If the government's intent is to encourage very rapid repayment of student loans and at the same time not to offer an escape from the impact of the supplementary rates, various modifications of the above procedure are possible. A simple one would have the borrower compute the amount due under the supplementary rates as above described, to compute the difference between the amount due under the supplementary rates for his actual income and the amount due as above described, and pay some fraction (one-half or two-thirds) of this difference plus the amount due under the supplementary rates for his actual income.¹⁹ This, by turning penalty into bonus, would at once

¹⁹ For example, consider the illustration above of a borrower with taxable income of \$7500 who chooses to pay \$1440 under the standard rates instead of the minimum required of \$790. The supplementary payment for income of \$7500 is \$80; the supplementary payment for income of \$9000, the income for which \$1440 is the minimum required under the standard rates, is \$180. The payment then required under the supplementary rates for this borrower is $\$80 + \frac{1}{2} (\$180 - \$80)$ or \$130. This method results in a saving under the supplementary rates, for this borrower even with income held constant at \$7500 would pay \$144 under the supplementary rates (that is, $\$1440/\$790 \times \$80$) in the course of paying \$1440 under the standard rates, when he makes minimum payments under the standard rates for his income of \$7500. Under this method, rapid repayment reduces the amount otherwise paid under the supplementary rates but does not permit total escape from the progressive structure of these rates.

give the borrower, regardless of his income class, an incentive to repay more rapidly than the minimum rate required for his income and would still prevent his escape from payments under the supplementary rates, though the total amount paid under these rates over the life of the loan would probably be less than otherwise.

Altogether different approaches to this problem are possible; the one given here appears simple and effective. Refinements apart, the point is that some such procedure is essential to a program which would depend upon income from the supplementary rates to cover losses from unpaid loans and which would depend upon the deterrent of the supplementary rates to discourage loan applications from those not in need of loans.

C. GOVERNMENT COSTS

The nature of the repayment provisions is such as to produce a program in which the cost to government as financial sponsor can be zero in the long run (or equal to administrative costs, if these are absorbed by government). For there is plainly some combination of standard and supplementary rate schedules, adjusted upward or downward over the years as required, which will in the long run produce an equality between funds paid out by government in new loans and funds paid back by borrowers on the principal of outstanding loans, including payments under supplementary rates.²⁰ Of course, allowing for a growth factor, an ever larger number of borrowers with an ever larger student population (and perhaps an ever larger average loan per borrower), the funds paid out every year will exceed the funds received. Such excess, however, is an outlay but not a cost, since government will receive interest on this excess (as on all loan funds outstanding except those owed by borrowers with taxable incomes below the exempt level) at a rate at least equal to the interest rate paid by government in borrowing the funds.

While there is clearly a "break-even" combination of standard and supplementary rates over the long run, a crucial question is how high supplementary rates would have to be for this purpose. The higher these rates, the greater the deterrent to prospective borrowers; the greater the deterrent, the less effective and narrower must be the program. The level of supplementary rates in any year rests upon the loss experienced on loans unpaid in whole

²⁰ It is a shortcoming of the program that government could not with precision determine in advance the rate schedules which would, in the long run, apart from a growth factor, produce this balance between income and outgo, assuming that this is the government's objective. Yet it would appear that after the program's first decade, sufficient experience would have been gained to permit the adjustment of the rate schedules year by year to levels which would approximate this result. With ever more experience over succeeding years, this result could be more and more closely approximated.

or in part as a result of (1) evasion, (2) death of borrowers, and (3) the waiver applied to borrowers with taxable income below the exemption level. The prospective loss from the first is indeterminate at the outset; the loss from the second and third is determinate within limits and the loss from the third may be minimized by an appropriate downward adjustment of the minimum taxable income at which repayment becomes obligatory.²¹

Losses through evasion could probably be held to a very low level. Though there might be the will to evade on the part of a disturbingly large number of borrowers, there will be a way for relatively few. Payment due in any year under both standard and supplementary rates is determined by the borrowers' taxable income. In order to pay less than the minimum amount due, the borrower would have to report lower taxable income for loan payment purposes than for personal income tax purposes. Any such discrepancy could be easily detected. And even so, such understatement of taxable income can only evade some part of the amount due for that year under the supplementary rates; it does not evade any part of the loan balance due under the standard rates, for what is not paid this year remains to be paid with interest in future years.

More serious than merely understating taxable income would be the complete failure of some borrowers to pay at all, thus imposing upon the government a troublesome collection problem, a problem even now being faced by some universities on private loans and loans made under the National Defense Education Act. While the agency could be empowered with roughly the same collection tools and the same penalties for nonpayment now in the hands of the Internal Revenue Service, the possibility of evasion could be virtually eliminated for the vast majority of borrowers by withholding loan payments at the income source, as in the case of the personal income tax. This may appear to be an extreme device in view of the relatively small number of borrowers as compared with the number of taxpayers. However, assuming the average repayment period to extend over ten years, a large scale loan program in full swing could easily show more than a million borrowers making payments in any one year. The Federal Government has made loans to 330,000 students during 1958-62 under the National Defense Education Act and estimates are for 220,000 loans for the present school year alone. Withholding would appear to be almost essential for the program here proposed.

²¹ Of course, to reduce this to too low a level violates the principle of ability to pay. There thus arises the question of choosing between higher supplementary rates and a lower taxable income exemption. Which of the two is to be changed, or what particular change is to be made in each of the two, are questions analogous to raising additional income under the personal income tax by an upward adjustment of rates or a downward adjustment of the personal exemption. Some of the same difficult questions of equity would arise in this aspect of the loan program as in revisions of these corresponding parts of the personal income tax.

and would be a simple and effective means of minimizing evasion of payment under the program.²²

Given the possibility of adjusting the minimum taxable income exemption downward and the supplementary rates upward, and given the likelihood that evasion of payments may, through withholding and other devices, be held down to a low level, the program in the long run will generate income equal to outgo with a moderate supplementary rate schedule. If the administrative costs of the program are to be covered out of receipts under the supplementary rates, a somewhat higher supplementary rate structure would be required. But if losses can be held down and if administrative costs are covered out of appropriations by Congress for this purpose, the supplementary rate structure should not be so high as to act as a serious deterrent to potential borrowers. In this case, loan funds will be made available to students on economically manageable and attractive terms. At the same time, the relevant point here is that in the long run the government will incur no costs, other than administrative costs, under the program.

CONCLUSION

The program here outlined is suggested as one possible approach to financing the continuously rising share of the costs of higher education carried by students. Although here considered to the exclusion of other possible approaches, it is not for this reason advanced as a panacea. The colleges and universities would continue to raise as much income as possible through sources other than tuition and related charges. Whether appropriations by government or gifts by businesses and individuals, whether designated for construction, salaries, scholarships, or other use, the schools will persist in their attempts to enlarge the present flow of public and private funds. Ever higher tuition will remain as the last resort, but, with the flow of funds from these other sources remaining inadequate, this unfortunately appears to be inevitable. It is the proposed large scale loan program that makes this resort to higher tuition charges something other than the self-defeating device which it threatens to become. For qualified students need not be priced out of a college education by these higher charges, if there is available to them on an economically sound basis long-term loans to finance whatever part of these higher charges are beyond their means. The suggested loan program appears to be one which can directly meet the needs of individual students and indi-

²² For the self-employed, quarterly loan payments based on estimated taxable income would be made as described in Part B. Although withholding is thus not available for the self-employed, this group would make up a small percentage of borrowers and would not present an unmanageable collection problem.

rectly, through the higher tuition charges it makes permissible, supply some part of the funds for growth and improvement of the colleges and universities.

The program can accomplish these objectives in what is essentially a conservative framework. It does not call for subsidies or any other type of "hand-out," although here, if anywhere, we find the best possible case for subsidies. It offers nothing to those who want something for nothing; it does offer to those willing to assume today a provisional financial obligation the opportunity to prepare themselves for a more productive life tomorrow. It provides long-term credit for a purpose which produces the means of its own repayment. It does not call upon taxpayers to provide a larger share of the huge sums needed by the nation's colleges and universities. It does not give the federal government control of higher education, but offers a way for government at a minimum or even zero cost to assist in the solution of the financing problem. It provides financial aid to those individual students who need it without requiring proof of need. It provides the schools with the means to enlarge and improve faculties and facilities by putting more and more of the cost upon the primary beneficiaries thereof, the students themselves, at a time when they are better able to meet these costs, during their years of employment. And most important of all, by not saddling the student borrower with a debt whose future repayment is a contractual obligation in no way connected with his future ability to pay, the program can allay students' fears of incurring a debt which they may not be able to repay. With an economically manageable scheme for loan repayments and with loans available to all academically qualified students, the program can assure that no such student will be denied a college education because of inadequate financial means.

DISCUSSION 2. A Discussion of some of the issues and problems raised by Professor Shapiro's article will be published in our next issue (Summer 1963).

This criticism of the tendency amongst educators to limit the definition of "knowledge" to narrowly linguistic aspects proceeds to an evaluation of the distinctive contributions that the visual arts can make to American education.

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Knowledge, Knowing, and the Visual Arts

What place can the visual arts justly claim in the curriculum? At present their position is at best tenuous for although some form of art instruction is available in most schools and has been for many years, art instruction tends to be regarded as more of an embellishment than a necessity.¹ Pleas are often heard that the arts and the humanities generally should be given their proper educational due, yet with the increasing emphasis upon science and the mounting pressures placed upon students to study the "solids" such exhortations pale by comparison. If one considers the position of the visual arts in relation to what is considered central to education, the conclusion that art is a frill is hardly escapable. Empirical evidence for this was obtained in a study completed a few years ago.² In this study almost four thousand educators and lay citizens were asked to rank, in order of importance, sixteen tasks traditionally encompassed by the school. Aesthetic development, as one of the tasks, was placed twelfth in the list of sixteen by educators and fourteenth by non-educators, being outranked by physical development, patriotism, citizenship, and the like. Although the rank of aesthetic development increased with the educational level of those interviewed, in no case did it break into

¹ The visual arts include those art productions within the general categories of painting, graphics, and sculpture.

² Lawrence Downey, *The Task of Public Education: the Perceptions of People* (Chicago: Midwest Administration Center, University of Chicago, 1960).

the upper half of the list. As much as some might write or speak of their importance, the visual arts have not come into their own in American education. What is it that the arts have to contribute? And why is it that one of the most humane areas of human activity should hold such a tenuous place in the schools?

A brief look at the various roles the visual arts have assumed in American education may provide some clues useful for answering the latter question and an examination of the character of art may help us deal with the former.

When the academies arose after the revolution, art instruction was considered important primarily for developing cultured tastes. To develop these tastes and cultural refinements, children were taught how to sew pictures on velvet, to work in wax, and to paint pictures on glass. Competence in art was considered an accomplishment, a mark of refinement, something analogous to good manners, something every well brought up and well schooled child should have. But with the growth of industry in the 1800's a new function of art emerged. When in 1871 Walter Smith left his post in the South Kensington Art School in England to become director of art for Boston, this second role was already underway. In this role art was considered important because it could help children develop skills that would aid them vocationally. In 1874 a U. S. Bureau of Education Bulletin described this new view of art as follows:

In addition to the increased competition arising from steam-carriage, new and cheaper methods of manufacture, and increased productiveness, another element of value has rapidly pervaded all manufacturers, an element in which the United States has been and is woefully deficient—the art-element. The element of beauty is found to have pecuniary as well as aesthetic value. *The training of the hand and of the eye which is given by drawing is found to be of the greatest advantage to the worker in nearly every branch of industry.* Whatever trade may be chosen, knowledge of drawing is an advantage and in many occupations is rapidly becoming indispensable. This training is of value to all the children and offers to girls as well as boys opportunity for useful and remunerative occupations, for drawing in the public schools is *not to be taught as mere 'accomplishment'.* The end sought is not to enable the scholar to draw a pretty picture, but to so train the hand and eye that he may be better fitted to become a bread-winner. [Italics mine.]³

With the initiation of the child study movement in the 1880's, a new direction and slow evolution of the role of visual arts emerged. This third view, buttressed by the growth of Freudianism in the 1920's, conceived of art as being important primarily for its therapeutic value. Art expression became

³ "The Relation of Art to Education," *Circulars of Information of Bureau of Education*, No. 2 (Washington: Government Printing Office, 1874), pp. 86-88.

a kind of preventive medicine, a way of helping the child express his impulses and anxieties, thus contributing to the development of healthy personalities. Teachers were not to interfere, art instruction could only obstruct, the child was to be left free to express himself. Art was in the service of mental health.

The fourth role for art developed when in 1918 the seven cardinal principles of education were hoisted upon the educational mast. The cardinal principles spoke of educating for worthy home membership and worthy use of leisure time, and schoolmen attempted to justify art's claim to educational time by extolling the virtues of the arts in relation to their ability to provide for worthy home membership and worthy use of leisure. The arts were viewed as contributing no more and no less than the other subjects to a growing list of educational purposes. If school systems desired the schools to produce good citizens, the arts were volunteered for their contribution; after all who could deny that art made for good citizenship? And ethical behavior, to this too the arts were well suited. Art was justified because it was said to contribute to almost any educational aim formulated by the local school boards. Thus the arts, like the other subject areas, could shout "me too" when the agenda of objectives was drawn up and posted.

A fifth role emerged when in the 20's and 30's the project method was popularized. As a modification of a kind of Platonism, art was used primarily to teach ideas. If the teacher wanted a social studies concept firmly embedded in the children's minds, what better means was there to use than to have the children make *papier mâché* maps, houses, boats and the like? Very often this method worked. The children liked it, the teacher could present visible evidence of an activity curriculum and the principals were happy because the trappings of "progressive education" could be displayed. Thus, in this fifth role art was placed in the service of concept formation.

To some extent these conceptions of the function of art still permeate school programs. There are, however, other reasons of perhaps even greater importance that have influenced the role of the visual arts in the schools. These reasons have to do with the way in which education is conceived and the purposes the schools are expected to serve.

Schools are now and have long been concerned with helping children learn how to produce and acquire knowledge. Notwithstanding the few periods in American educational history when other concerns dominated, the belief that schools should pass on to children the knowledge and wisdom of the ages has been pervasive. Helping children acquire knowledge is a reasonable and proper goal for schools to aspire towards, perhaps even a primary one. The difficulty lies in the tendency to limit knowing to a conception of knowledge defined in narrowly linguistic, discursive, or propositional terms. Such a

conception disregards the school's potential capability of developing other, at least equally important ways in which men are capable of comprehending their world.⁴ The virtually exclusive use of discursive language as a vehicle for knowing is obvious from even a cursory view of school curricula. Our schools are essentially language schools: we value high level language skills, we reward them and if our tests are any indication we act as though we believed that knowing something is synonymous with being able to put it into words.

Our concern with discursive language is also reflected in the fact that the three "R's" crown the list of school purposes. All three share a common characteristic, all three are embodied in symbols and of necessity are once removed from the immediacy of their referents. Symbols mediate experience and the language systems in which they exist often act as a buffer, a mediator, a screen for the child's percepts. All too often the child learns to substitute the symbol of the thing experienced for the qualities of it. Instead of seeing it, he learns to symbolize it. Recognition replaces vision.⁵ He moves from percept to concept, from the sense of the thing to the idea of it, a process so firmly reinforced that by the time he is nine the child who was once able to generate the poetic image of an oil slick as a dying rainbow is no longer able to do this.⁶ The language of the intellect is substituted for poetic vision. And as the use of

⁴I am not suggesting that discursive language is not important for students to learn to use with a high degree of precision. I am suggesting that language can be used in non-discursive ways such as in poetry, in the construction of metaphor, and in stylistic forms. Such a use of language can provide meanings that may be inaccessible to the discursive. The visual arts, painting, graphics, sculpture, may be conceived as non-discursive modes of apprehension, expression, and communication and thereby can provide an important way of knowing.

⁵Both John Dewey in *Art as Experience* and Ernest Schachtel in *Metamorphosis* discuss the distinction between seeing and recognizing. For Dewey "Bare recognition is satisfied when a proper tag or label is attached, 'proper' signifying one that serves a purpose outside the act of recognition. . . . It involves no stir of the organism, no inner commotion. But an act of perception proceeds by waves that extend serially throughout the entire organism. There is, therefore, no such thing in perception as seeing or hearing *plus* emotion. The perceived object in a scene is emotionally pervaded throughout. When an aroused emotion does not permeate the material that is perceived or thought of, it is either preliminary or pathological." And Schachtel, speaking of how language may function in perception says: "The word, of course, never can take the place of the object or the quality or the activity which it designates or indicates. But most of the time, when we listen to the spoken or read the written word, we neither perceive nor imagine the referent of the word but are in contact only with the words (concepts). We behave as if the word were really all there is to the object which it designates. The label (sign) becomes a substitute for its referent, all thus, in listening or reading we are divorced from any experience of that which the words point to."

⁶Lawrence Kubie, speaking of the iconic character of the preconscious in its role in creative behavior suggests that where the child is tied too firmly to the demands of external reality either through pressures from adults or from a formal system such as logic he is apt to have his preconscious processes impeded and thus his ability to function creatively hampered. See L. Kubie, *Neurotic Distortions of the Creative Process* (Lawrence, Kansas: The University of Kansas Press, 1958).

language becomes more theoretical its power to alienate man from the subtleties of feeling strengthens. Lionel Trilling has put the case this way:

It is a truism of contemporary thought that the whole nature of man stands in danger of being brutalized by the intellect, or at least by some one of its apparently accredited surrogates. A specter haunts our culture—it is that people will eventually be unable to say, 'they fell in love and married', let alone understand the language of Romeo and Juliet, but will, as a matter of course say, 'Their libidinal impulses being reciprocal they activated their individual erotic drives and integrated them within the same frame of reference.'⁷

The emphasis we have placed on a linguistic conception of knowledge is complimented by our suspicion of the sensibilities. It may seem paradoxical but when it comes to art the sensibilities are not trusted. The public's reaction to non-objective art is clear evidence of this. Most of us are not quite sure if the modern painter is pulling our leg. If we only had some criteria to use, some yardstick with which to measure the artistic worth of a painting. If we only understood the painting—as if a painting could be understood in the same terms that we apply to logical systems. Our suspicion of purposely arousing the sensibilities may be a remnant of the Puritan belief that art is play and that the emotions are to be controlled and subdued. The emotions lead to the passions, the passions to the pleasures of the flesh, and the pleasures of the flesh—well you know where they lead! Since the arts play upon the emotions, they too are to be controlled. And in addition, they never quite make the grade as work. The arts are not solid.

Our concern with knowledge as it is embedded in discursive language is also evidenced by what we test for in the schools, what we reward, and what we expect of our children.

The school, like no other social institution, is replete with tests and testing. Furthermore, with the continued expansion of research in education the use of tests is likely to increase. This increase in testing is also likely to accelerate because the growing number of students wanting to enter college have forced the colleges to become more selective. Part of this selectivity manifests itself in tests such as the college board and the entrance examinations. The colleges expect high proficiency on these tests and few if any high schools can afford to ignore them. The ripple that had its birth at the university threshold goes right down to the elementary school. What the universities value the high schools learn to value. What the high school values the elementary school prepares for. Thus, the university, by placing high priority on the possession

⁷ Lionel Trilling, *The Liberal Imagination* (Garden City, New York: Doubleday and Company, Inc., 1953), p. 271.

of knowledge defined almost exclusively in narrowly linguistic terms, and by reinforcing this priority by testing for it, is beginning to determine what shall be taught in the high school. The visual arts play a very small roll in these tests, mainly because proficiency in the arts is not especially valuable in the college program and partly because we have few good tests of artistic performance or appreciation available. It's not easy to capture the quality of the student's experience of a painting on an IBM card.

The tests that are most widely used deal primarily with items that are easiest to test for, possession and understanding of knowledge. Since test scores have significance for the college bound student, schools tend to emphasize those subject areas which are most likely to enable the student to pass these tests. While we might wax eloquent over the more grandiose purposes of education, our tests give us away. This is not to indict the test makers. The plain fact is that we have not yet learned to construct the kinds of tests that, within the disciplines, assess the higher levels of cognitive behavior.⁸ Thus the arts, by virtue of a narrow conception of education and by virtue of their resistance to the testing methods now available, have been placed in the gallery on the American educational scene.

What do the visual arts have to contribute to the education of children and youth? What claim can they justly make upon the school program? Perhaps this can best be answered by examining some of the characteristics of the visual arts in the hope that we may discover and become able to articulate what many of us have intuitively valued.

Perhaps one of the most important characteristics of the visual arts is that they are organizations of qualities. A quality is synonymous with one's experience of anything sensible.⁹ In the visual arts the elements of color, line, shape, composition are common. Qualities existing within these classes of elements are capable of eliciting differing reactions as evidenced in the ordinary way we describe certain colors as cool and others as warm, certain compositions balanced, others as not, and certain lines as active while we describe others as static or placid. It is with these qualities and their combinations that the creative artist constructs in the artistic act. These qualities serve as the raw material for his productions. But these qualities alone and isolated constitute no artistic product; they must be selected, modified, and organized into some coherent whole; the artist must qualify qualities. He must arrange qualities

⁸ Some recent tests such as the *STEP Test* display a marked improvement in assessing high level cognitive behavior, but the vast majority of standardized achievement tests seldom measure more than the student's ability to recall or comprehend information. The higher levels in Bloom's taxonomy, for example, are seldom assessed.

⁹ Numerals are sensible and can act primarily as qualities provided their meanings are disregarded. This holds true for any sensible form that also has theoretical meaning.

in such a way that their effect taken jointly is coherent as well as sensible. It is in the successful execution of this task that intelligence is exercised, an intelligence that may be called qualitative.¹⁰ Qualitative intelligence may be looked upon, at least partially, as both the ability to conceive of qualitative ends and to formulate the means whereby those ends are realized.¹¹ This ability has been alluded to by Dewey in several sections of *Art as Experience* and suggested in other forms in the writings of Ernst Cassirer and Herbert Read.¹² It will be sufficient at this point if the reader is able to conceive of the artist's problem as largely, but not totally, devoted to the aesthetic ordering of the qualitative, a task requiring the use of qualitative intelligence. In pursuing this task the artist's decisions, selections and rejections are made through a keenly developed sensitivity to the qualities that flow from his ongoing actions and from his awareness of that subtle order and coherence that marks the completed work.

It would be a mistake to think, however, that the capacity to make these judgments is the sole property of those we call artists. Anyone who has ever faced the problem of making selections in the domain of the qualitative—housewives engaged in setting a handsome table, gardeners planting a flowerbed, amateur furniture builders designing a bookshelf—has, in degree, exercised qualitative intelligence.

The fact that qualitative intelligence is exercised in the construction of qualitative wholes is not meant to imply that it is not used when such elements are already ordered. The appreciative act is no less a qualitative problem and no viewer of great art can experience its aesthetic qualities if he has not developed the intelligence necessary to do so. Thus, what both viewer and artist hold in common is that they both share a qualitative problem: the artist in the physical ordering of disparate elements and the spectator in the intelligent reconstruction of the product's qualities. The importance of developing such intelligence through the schools is probably obvious to anyone who values the distinctive contribution of the arts. Through such development students become able to intelligently control qualities and therefore to be able to experience them artistically.

¹⁰ I am indebted to Francis Villemain of the University of Toledo and to David Ecker of the Ohio State University for valuable discussion on the qualitative aspects of intelligence.

¹¹ The term qualitative intelligence is used here in distinction to aesthetic sensitivity or appreciation since it is meant to connote action designed to resolve a problematic state of affairs. This state of affairs exists in the domain of the qualitative and may be resolved in the physical ordering of qualities as exemplified by the activities of the visual artist or by the viewer who must actively perceive and order qualities residing in artistic works. Aesthetic sensitivity and appreciation are *products* of intelligent inquiry into the domain of the qualitative. It is through qualitative intelligence that such ends are achieved.

¹² See especially Cassirer's chapter on art in *An Essay on Man* (New Haven: Yale University Press, 1944), and Read's *The Forms of Things Unknown* (New York: Horizon Press, 1960).

Treating the production of art as consequence of qualitative intelligence has several assets. First such treatment removes it from the realm of the mystic and makes it at least potentially susceptible to scientific study. It is not inconceivable that tests designed to measure various modes of qualitative intelligence could be developed. Such tests might be constructed on a factorial basis similar to many group intelligence tests. It seems reasonable to expect that individuals differ with respect to their ability to intelligently control different visual elements.¹³ Such differences might emerge in a factorial study of qualitative intelligence.

A second advantage of substituting the concept of qualitative intelligence for talent is that it may counter our traditional disposition to view talent as a dichotomously distributed ability or trait. If talent is dichotomously distributed, it would seem reasonable for those who do not possess it to direct their energies elsewhere. If, however, qualitative intelligence is analogous to intelligence as measured by tests now available, then differences among individuals are only a matter of degree. With this view the problem for the teacher shifts; it becomes not so much a problem of finding a substitute study for the untalented, but a matter of helping the student develop whatever qualitative intelligence he may possess.

The development of qualitative intelligence through the visual arts also acts to remind us that a thing may be its own end. In an age when the instrumental view of life is most pervasive, when people as well as things are used as tools, the arts whisper of another world view. The arts teach us that a full encounter with even the most insignificant thing (notice the attention modern painters give to discarded relics and found objects, things that would have been considered unworthy of artistic attention years ago), has its own reward. A dealer may look at a painting as a piece of merchandise to be sold, a critic as something to write about, an investor as a more or less promising sort of stock. In every case where art is used that way it ceases to act as art, for in such cases the qualitative is made instrumental, art is made a tool and it is in the nature of art that it can be either a tool or art but not both *at the same time*.

The visual arts have a second contribution to make. The artist's view of things is valuable not only because it intelligently perceives the qualities that constitute objects but also because it can see what lies beneath them. The first contribution of the arts, the development of qualitative intelligence through the perception and organization of the qualitative, is supplemented by insight into those qualities which are not visually sensed. If this sounds paradoxical,

¹³ Note the differences among artists in their ability to cope with line, color, composition, —differences evidenced in the works of Botticelli, Titian, and Rubens to mention only a few.

a few examples of such vision will attest to its credibility. Recall Edward Hopper's view of the quiet loneliness of the corner diner in *Nighthawks*, John Sloan's view of turn of the century tenements, Ben Shahn's perception of the Sacco-Vanzetti trial, Giacometti's concern with the condition of modern man and his estrangement from his fellow. It is obvious that these artists created no mere description of visual qualities. Their constructions penetrated qualities that are simply not circumscribed either by discursive language or by faithfully imitating the object's visual detail. By his perception of these depth qualities and his ability to transform them into visible form, the artist provides us with a documentation of his experience, an experience derived from his sensitive vision. It is through his ability to make the felt visible that we are able to share with him this new view of the world.

What I have been attempting to describe in language is the contribution artistic vision can make to a view of the world. The fact that sensitive artists perceive aspects of life that are often hidden from others is evidenced in the insight we attribute to great artists. In the field of literature this fact is perhaps even more obvious. The characterizations of Dostoyevsky, of Conrad, of Hemingway penetrate deeply into the life of man. The insight of the great visual artist reaches no less deeply. It seems to me that the preparation needed to obtain this view warrants an important place in the educational program.

A third contribution of the visual arts to education is the one it makes to our subjective world. While the first two contributions of art deal primarily with the organization and depth perception of the outer world, the third contribution of the visual arts resides in its ability to clarify our inner world. The thoughts, phantasies, hopes and fears which so fleetingly pass through our minds can be grasped and, as it were, pulled upwards through the act of artistic creation. The transformation of these evanescent thoughts and phantasies into material form allows one to see them in durable and stable fashion. Through the physical making of the art object we become able to see what we have so evanescently felt and thought. Of course the very act of transforming these feelings and thoughts into visible form changes them, yet this modification differs significantly from the change they would undergo if transformed into discursive language, and because many of our phantasies and most personal visions are visual it may be that a truer view of these inner visions may be obtained through the visual arts than through any other mode of human expression.

The psychological values derived from the making of art have been noted since Pythagoras, and anthropologists have found evidence that art production is characteristic of almost all cultures. Franz Boas has pointed out that such activity is prevalent even in societies most desperately struggling for

survival.¹⁴ Even when energies may be more "practically" directed, art has held its place. The sacrifice of art to the more "practical" matters in education is bound to exact a heavy price. John Ciardi, the poet, once computed this price for a group of successful business executives. He told them:

There is no poetry for the practical man. There is poetry only for the mankind of the man who spends a certain amount of his time turning the mechanical wheel. But let him spend too much of his life at the mechanics of practicality and either he must become something less than a man, or his very mechanical efficiency will become impaired by the frustrations stored up in his irrational human personality. An ulcer, gentlemen, is an unkissed imagination taking his revenge for having been jilted. It is an unwritten poem, a neglected music, an unpainted watercolor, an undanced dance. It is a declaration from the mankind of the man that a clear spring of joy has not been tapped, and that it must break through, muddily on its own.¹⁵

Finally, making in the visual arts teaches us that a great difference exists between knowing something and having knowledge of it. The knowing that comes through the making of art is produced by the maker's struggle to see qualities and to give these qualities visible life by transforming them into artistic form. Through this process the artist comes to know his experience in a way that can only be realized in the struggle to bring it to the surface as a personal and public form. Thus knowing art, like knowing science, requires an intimate and deep involvement with it. Knowing anything in its deepest sense means knowing how to be creative with it. The studio is to the artist what the laboratory is to the scientist, for it is in the *production* of art and science that knowing is realized.

Consider for a moment what children would miss if they merely learned *about* art rather than learning how to make it. In the making of art children learn how to respond to and order qualities. They learn to use their qualitative intelligence to select and reject the qualities needed to make things beautiful. They learn to see what they look at. And above all, children begin to learn what only art can teach: that to make something beautiful you must first learn to make it beautifully. This is the way of knowing.

It is my view that the roles the visual arts have been generally assigned in the schools have been irrelevant to the distinctive contribution they might make. This has been due in part to a faulty conception of art and a narrow view of education. Art instruction can provide vocational skills, it can make the teaching of ideas more interesting, and it can contribute to worthy use

¹⁴ Franz Boas, *Primitive Art* (Cambridge, Mass.: Harvard University Press, 1927).

¹⁵ John Ciardi, from a speech entitled "An Ulcer Gentlemen is an Unwritten Poem," copyright by the author 1955, 1956.

of leisure time. It's not that art instruction is useless for achieving such ends, it's simply that these ends are essentially non-artistic. In emphasizing such ends the distinctive contributions of art tend to be overlooked.

I would hope that as we continue to improve American education, we would recognize the qualitative ways in which men apprehend and comprehend and that we would place art in a position much closer to the heart of education than it now enjoys.

What is Philosophy of Education?

The discussion begins with a review by D. J. O'Connor of Robert Ulich's recent book.* Issues raised by both the review and the book are treated subsequently by Wolfgang Brezinka, Charles Frankel, and Kingsley Price.

Discussion

PHILOSOPHY OF EDUCATION

D. J. O'CONNOR

It is doubtful if books of this kind ought to be called "philosophy"; or if they are to be so called, then books dealing with philosophical issues by philosophical methods must be called something else—"logic" or "analysis" perhaps. (I have heard one of the most distinguished philosophers of the present day use the word "philosopher" as a term of reproach and introduce his own views with the phrase "I and other logicians. . . .") The time has surely come when we must distinguish (by whatever names we choose to identify them) (A) the careful piecemeal dissection and criticism by rational methods of concepts and theories, and (B) urbane and cultured sermonizing in which factual generalizations, disguised recommendations, and metaphysical theories are mixed up together without any attempt to distinguish them or any attempt to warn the reader that they should be distinguished. B was sometimes called "philosophy" in the past; perhaps it has now usurped the title.

Both A and B can deal with any subject matter. This is a B-book and deals with education. When I read it, I am puzzled. What is Professor Ulich trying to do? Is he trying to tell us some new facts, or some neglected old ones, or trying to re-direct our interests and enthusiasms, or what? Is he adding to our knowledge or clarifying it? He explains in his Introduction that "it is our task in this book to examine the role that education plays within this ever-widening continuum of civilization." (p. xiii) This suggests that Dr. Ulich is going to write about the sociology of education. But the rest of the book does not read like sociology.

It is divided into two parts: "The Theoretical Groundwork" and "Educa-

*Robert Ulich, *Philosophy of Education* (New York: American Book Co., 1961). xiii + 286 pp. \$5.00.

tion in Action." The first concerns educational ideals rather than theory in any standard sense of the word. The second discusses method, curriculum and the education of teachers, and similar practical issues. Such problems have two parts: (1) the determination of the ends we are seeking; (2) the choice of efficient means to these ends. The first raises complex questions about judgments of value and their relations to facts, and the second complex empirical problems of organization and administration. Dr. Ulich never satisfactorily distinguishes the one from the other and leaves us in doubt as to whether he would even consider the distinction relevant to his task.

It is extraordinarily difficult to criticize or even understand the detail of his argument as the book is written on a level of high generality that makes it impossible to know what kind of criticism Ulich would accept as relevant to his claims. Suppose we put to him the now classical challenge, due to Karl Popper: "What evidence would you accept as refuting your thesis that, 'the education of the whole man can only mean helping a person to become aware of the wide range of developmental possibilities and opportunities inherent in him and his world, spiritually, intellectually, and aesthetically. It can only mean to plant in him the impulse to reach beyond that which he is to that which he could be and should be?'" (p. 258) Surely Ulich does not intend this as just a truism. This example is taken at random but such challenges could be multiplied *ad nauseam*. We have no clue from the book as to what the answer would be.

Perhaps however we do this kind of book an injustice by asking such questions, that is, by treating it as a rational exercise. If it is indeed a B-book and not an A-book, we should treat it as *belles lettres* rather than information and criticism, rationally supported and ordered. But if that is so, it needs another audience and certainly another reviewer.

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Philosophy of Education does not offer a systematic theory of education, limited to statements which can be called scientific in the strict sense of the word. Professor Ulich is convinced that "a merely quantitative, or 'scientific,' understanding of education, psychology, and the processes of learning, much though they may contribute to the clarification of partial problems, will not suffice." (p. 274) He considers it a serious danger for the teaching profession that so many "preparatory institutions have tried to build up their scholarly reputation by being 'scientific' at any cost." (p. 235) This has favored the

widespread inclination to confuse the "scientific method" "for the total outlook toward life." (p. 235)

Educational practice constantly demands decisions which are not completely reducible to scientific evidence. They are, rather, determined by value judgments closely related to the traditional systems of moral and religious convictions of a given society. "In the final analysis, the answers which man has given to the problems of education always reflect the interpretation he gives to the relation of himself, as an individual, to the natural and spiritual universe in which he lives." (p. 87) A theorist of education cannot escape confronting himself with problems of values, standards, and aims. They are in many respects more significant than the mere technical problems of organization and methods.

This background has to be kept in mind if one is to understand what Ulich means by the term "philosophy of education." His book deals with those aspects of educational theory which inevitably imply problems of valuation. Since Professor Ulich feels that these aspects are frequently overlooked or at least minimized in contemporary American theory of education, he stresses what he calls the "metaphysical" point of view. His outlook is essentially non-positivistic, non-pragmatic, trans-empirical, "philosophical." For the empirically-minded reader, this makes his book rather one-sided. He might get the impression that the author does not give full justice to the work of scientific psychology or sociology. The chapters in which psychological problems are touched are indeed the least satisfying; concepts like "sound human instincts" (p. 22), "moral drive" (p. 51), "cosmic energy" (p. 51), "ultimate energies which work at the bottom of our total existence" (p. 53), "cosmic forces" (p. 69) etc. are extremely vague. However, with relation to the main topic of the book these shortcomings are relatively unimportant. Ulich presumably intended neither to enrich nor to challenge our psychological knowledge. He rather wanted to emphasize the need for looking at education with respect to the *unum necessarium*, the deeper meaning of life. Since there exists no scientifically attainable evidence as to what this deeper meaning of life is, Professor Ulich could not help giving a confession. This confession is, of course, not of a purely subjective or naive kind; it is based on rational arguments and in line with the great tradition of Western philosophy from Plato to Goethe and Karl Jaspers. Nevertheless it is a confession and it couldn't be otherwise if one deals with problems of vital importance.

Professor Ulich is deeply concerned that, in modern times, more and more people have become spiritually "uprooted." He points to the dangers, in which, "a life without roots and love" (p. 113) involve the individual as well as society. He is convinced that, "there can be no freedom without belonging." (p. 113) He looks with sorrow at the "spiritual vacuum" that exists in many

public schools. (p. 117) He rightly feels that "freedom cannot consist of mere subjectivity; it needs objective standards able to determine what is worth striving for." (p. 150) He fights, therefore, against scepticism and "pseudo-intellectual negativism" (p. 159), against the widespread attitude of "being critical at any price," against "the trained but irresponsible intellect." Our present-day civilization, he contends, "may fail because of the glorification of the critical attitude which, if accepted by young and old, leads to disenchantment." (p. 87) Education should not be allowed "to withdraw in a corner of mental timidity, leaving a void where youth and adult should look for guidance." (p. 114) "It is one of the great and difficult responsibilities of the schools . . . to develop in their pupils the critical sense of doubt without taking away from them the capacity of faith." (p. 87)

These quotations sufficiently show the starting-point of Ulich's argument: it is the critical state of moral and religious orientation in modern society with all its consequences for the upbringing of youth. One should certainly not expect a simple solution of the extremely difficult problems involved. However, what is the direction into which the author wants to concentrate our intellectual efforts? How does he try to reconcile the "conflict between reason and faith"? (p. 270) How can we overcome "the lack of unifying ethical convictions"? (p. 221)

The answer is given in the two central chapters of the book, called "The Ordering Institutions and Ideals" (pp. 93ff.) and "Cosmic Reverence." (pp. 116ff.) Here the author tries to recombine the Judaeo-Christian and the Greek-Roman-Humanist outlook on life. (p. 103) But the Christian religion is regarded as only one of several similarly important streams of religious tradition. This leads Professor Ulich to envisage a kind of super-religion for modern intellectuals, called the "cosmic world view." (p. 121) It is proposed as a "higher synthesis" (p. 114) of all religious and humanist traditions that mankind treasures. As a consequence, the differences between the great interpretations of human existence fade away. Everything is related to everything else: the Old Testament to the Brahma, the Greek tragedians to Tolstoy, Confucius to Jesus, Socrates to Beethoven. (p. 134) It only depends "what kind of vocabulary we use." (p. 136) All these different outlooks on life coincide—according to Ulich—in what he calls "cosmic reverence." (p. 121) The idea of "cosmic reverence" and the related attitude are the *credo* of his book.

This is not the place to argue about religious postulates. I have to confine myself to a discussion of the impact Professor Ulich's ideas might have on the theory and practice of education. It is not difficult to respect a personal decision the motives of which are explained in such a noble and honest way. However, do the arguments introduced to back up this decision offer anything

which can be used as a remedy towards the spiritual uprootedness of youth? I am afraid not. I admit that they may help some intellectuals to think about the problem, but I seriously doubt that they can evoke the commitment of the unfaithful. The concepts referred to like "integralism" (p. 55), "belonging," "cosmic reverence," or "spirit of transcendence" (p. 144) are extremely vague and dry. Ideas of such a high level of abstraction cannot exert a strong influence on the average man. They have to become embodied in meaningful symbols, in concrete visions, in forms which can be seen in everyday life, in order to support motivational power and to serve as means of religious orientation.

Unfortunately Professor Ulich does not take seriously enough what he himself said in another context: "the full value of abstract concepts opens itself only to rare minds." (p. 182) Since he neglects to mention the social and institutional prerequisites which are indispensable if one wants to lift the individual level of religious aspiration, this leads to utopian demands on the vast majority of teachers.

Teachers are, like all other adults, children of their time; they are deeply influenced by the culture of their society. How can one expect them to bring about the desired state of mind in their pupils as long as the prevailing attitudes of the society's members are to the contrary? Is this to be accomplished by private and lonely decisions without any external support of a community of men and women who share the same basic convictions? This would be too heavy a burden for the average teacher. In determining the aims of education for a whole national school-system one cannot rely on the exceptional individual or small elite circles. Leaving atypical cases aside it seems futile to hope for a spiritual regeneration of teachers and students on a large scale without a regeneration of the society as a whole. With regard to moral norms and religious faith I don't see any reason for sharing the optimism of those who trust in deliberate educational planning. From the text it is not quite clear whether Professor Ulich believes in this type of planning or not. If not, it would be hard to understand why, in a textbook on education, he deals with such complicated issues as ethics and the philosophy of religion.

The second and more practically oriented part of the book has to be seen against the general background just described. Here the author applies his religious ideas in a very readable way to specific problems of school organization and instruction. He throws new light on old points of controversy, always guided by his basic conviction, with which the reviewer is in complete agreement: "Without deep roots, the person, the nation, and education cannot withstand the difficult times ahead." (p. 274)

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Like Professor O'Connor, I think that "the careful piecemeal dissection and criticism by rational methods of concepts and theories" is both an indispensable part of philosophy and a solid intellectual enterprise, provided, of course, that the materials examined are important and the examination competent and relevant. And I confess that I have certain conditioned reflexes rather like Mr. O'Connor's, so that my teeth are set a little on edge when I come upon "urbane and cultured sermonizing in which factual generalizations, disguised recommendations, and metaphysical theories are mixed up together without any attempt to distinguish them or any attempt to warn the reader that they should be distinguished." I doubt, indeed, that I would use the words "urbane" and "cultured" to describe this kind of enterprise, since it seems to me the essence of urbanity to be able to separate one's beliefs about the facts from the judgments one passes on them, and to separate both from oracular utterances about the ultimate constitution of the universe.

Nevertheless, even though I too have difficulty interpreting many passages in Professor Ulich's book, I do not think that Mr. O'Connor has been fair to Professor Ulich. He has not told prospective readers of Mr. Ulich's book what the author's intentions are, how far he succeeds in realizing these intentions, and just exactly why these intentions are or are not well conceived. And I think the reason for this is that he has not managed to understand, and has perhaps ruled out on principle, the *kind* of enterprise in which Professor Ulich has engaged. The distinction Mr. O'Connor makes—and the language he employs to express it—between "logic" or "analysis" on one side and "sermonizing" and "disguised recommendations" on the other seems to me to involve some disguised sermonizing and recommendations of its own, and to leave out of account a kind of intellectual activity which is important and unavoidable, and which has commonly been called "philosophy of education."

This is a pity, I think, for the philosophy of education is going to be practiced whether we like it or not, and it is therefore important that it be practiced in a disciplined way. To dismiss it out of hand as somehow only a pseudo-discipline is unlikely to produce this result. Moreover, the dismissal of philosophy of education is as bad for philosophy, I am inclined to believe, as it is for education. Most important contributions to philosophy have been made by thinkers who have wrestled not simply with problems within the philosophic tradition, but with problems generated by primary subject-matter and fields of activity, such as physics, psychology, the law, politics, or education. Plato, Locke, Kant, Russell, and Dewey are a few cases in point. Logical analysis and methodology are indispensable aspects of philosophy. But I doubt that they alone offer a solid enough diet to keep the philosophic

enterprise vigorous for an indefinite future, or to keep it attractive to a sufficient number of the best and most serious minds.

What then, is the character of the enterprise which, if I am right, Professor O'Connor ignores? Let us look at the situation immediately in front of us. Today, important choices are being made about the direction in which our schools should move and the purposes they should serve. Some of these choices are being made deliberately; many more of them are simply the results of inattention and indecision. No one would wish to argue, I presume, that the second method is preferable to the first. Accordingly, if the choices are to be made deliberately, and in such a way that we can claim to know what we are doing, the probable consequences of different courses of action have to be estimated, and the relation of these consequences to certain stipulated ideals has to be determined.

But this is not all. The problem is not only one of determining whether a certain proposed course of action is a means calculated to achieve certain ideal ends. We also have to compare this course of action with others that are available, and weigh their relative advantages and disadvantages. A thoroughly deliberate and responsible process of making educational choices requires an effort to make sure—I mean as sure as our limited intelligence and resources permit—that in making our choices all the alternatives have been carefully formulated and fully canvassed. And it also requires us to examine the ideals we are employing as the measures of success or failure. Are they clear? Are they mutually compatible? Are they the ideals we wish to continue to use after having studied the costs and consequences of pursuing them? And given the facts that exist, what course of action is best likely to meet the demands, not simply of a single ideal, but of the re-examined and criticized system of ideals to which it belongs?

Now it can be said, and I am sure that Professor O'Connor would say, that the kind of inquiry I describe is in principle a purely factual one. It has to do with the empirical conditions and consequences that attach to the pursuit of given ideals. And it will also be said that if we do wish to reassess our commitments to specified ideals by examining their costs and effects, this requires us to hold up still other ideals, in the light of which these costs and effects can be evaluated. I agree with both these statements; nor do I have any disposition to deny Hume's position that statements expressing moral imperatives cannot be reduced, without remainder, to statements that merely describe facts. But none of this has the destructive consequences, so far as the tasks of philosophy are concerned, which are often supposed.

As I have described the philosophy of education, for example, it is, to be sure, a study of facts, including the fact that, at a given time and place, certain social purposes and intellectual and moral ideals have been accepted as

properly controlling the process of education. But the *focus* of philosophy of education is not on the facts; it is on the soundness of these purposes and ideals. Although the philosophy of education studies the strategies and methods of organization appropriate for achieving certain ends, it uses this study of ways and means as an instrument for the re-examination of ends and goals. As such a critical inquiry progresses, it goes without saying, other, more fundamental, values to which the criticism is pegged will be turned up. Any recommendations a philosophy of education reaches will have, accordingly, a logically provisional character. But when we are asked to give good reasons for choosing as we do, it is difficult to know what other kind of reason can be given than to show that the particular choice we are making is the product of a process of inquiry in which we have connected this choice with a larger scheme of choices, and in which we have also progressively discovered, clarified, broadened, and criticized this larger scheme.

Philosophy of education, so conceived, is simply one example of the kind of philosophy whose aim is to clarify human choices by indicating their relationship to some ordered and examined scheme of purposes. It is an application of the Socratic maxim, "Know thyself," and of the Socratic principle that the unexamined life is not worth living. Like the philosophy of science or the logical analysis of ordinary usage, it heightens men's self-awareness by putting the principles that govern their thought clearly before their minds, forcing them to wrestle with the puzzles and dilemmas implicit in these principles. But like Socrates' own philosophic activities, it is primarily moral and social in its intent. It is an attempt to clarify the principles we should employ when we set about answering the question, "What ought we to do?" and specifically, "In what ways and for what purposes shall we educate our children?"

This seems to me the task that philosophers of education from Plato to Bertrand Russell and John Dewey have undertaken, and it seems to me, incidentally, to be what Professor Ulich has tried to do. Such an enterprise is in part sociological, as Mr. O'Connor seems to suggest. It draws on materials from sociology, and also from psychology and other social sciences. The responsible projection of the probable consequences of alternative decisions requires the use of such materials. Moreover, the careful piecemeal analysis of concepts and theories is also required, including concepts and theories in the fields of methodology and epistemology. The character of reliable knowledge, the connections and disconnections between the sciences and the humanities, the different standards applicable to different subjects and the different intellectual functions these subjects perform, are all relevant to the resolution of many problems in the philosophy of education.

But such an enterprise aims at more than logical analysis, and it also goes beyond the purely descriptive purposes of the social sciences. Philosophy of

education is an effort to bring hidden ideals and purposes out into the open, to examine their interconnections and their relations to the facts, and to recognize the framework of principles within which we make our decisions. Its purpose is the discovery and criticism of ideals (and the consequent strengthening and reform of practice) and not simply the making of factual generalizations. And it is a task which is carried on, whether amateurishly or professionally, whether under the name of philosophy or under some other name, in any generation, unless people have simply gone to sleep. New knowledge, new social conditions and aspirations, changes in the character and prospects of the young who are being educated, advances in the understanding of children and of the art of teaching, all require the regular criticism and readjustment of inherited commitments in education.

Why, then, should there be the suspicions that now so plainly exist that the philosophy of education is in some way a pseudo-discipline and not really a legitimate field of inquiry at all? One of the reasons is that much of what now passes for philosophy of education consists of boiled-over platitudes; and much else consists simply of sweeping attacks on the educational status quo from the standpoint of high priori principles, whose content and practical implications are unclear. But this unhappy state of affairs is in turn the consequence, at least in part, I suspect, of certain systematic intellectual positions.

One of these I would call "The Fallacy of Determinate Ends." It is plain that *if* we know precisely what our ends are, and *if* we have clearly fixed the rules limiting the selection of techniques for reaching these ends, a fairly straightforward meaning can be given to the phrase, "the most efficient means to the end." The Fallacy of Determinate Ends consists in the assumption, however, that these conditions are usually fulfilled. In cases where we are seriously perplexed about what to do, however, this is not the case. We do not know what means to employ partly because we do not know what ends to pursue. Indeed, it is as we sort out and appraise alternative courses of action that we discover, sort out, appraise and (more or less) fix our ends. It is not simply the case, therefore, that a system of moral (or educational) principles is an instrument for making particular decisions; particular decisions are also potential instruments for discovering and reforming our system of principles.

The Fallacy of Determinate Ends is responsible, I think, for the sort of distinction made by Mr. O'Connor between "(1) the determination of the ends we are seeking," and "(2) the choice of efficient means to these ends." It is true that we cannot determine what we *ought* to do unless we have some moral commitments, and it is therefore true that recommendations or prescriptions do not belong to the same *logical* category as simple descriptive

statements. But it is not true that the determination of the ends we are seeking and the choice of efficient means to these ends are separable processes in inquiry. It is not surprising, therefore, that the philosophy of education should contain materials similar to those in the sociology of education. But the purpose to which these materials are put, the kind of intellectual operation performed upon them, is different. For the philosophy of education aims not simply at describing the schools or explaining them, but also at helping people to know a little bit more clearly what it is they want from their schools.

A second and closely connected fallacy which is also responsible for submerging the philosophy of education in self-doubt is what I should call "The Fallacy of Special Philosophical Knowledge." What is philosophy distinctive-ly? What separates it from other fields? One classic answer is that philosophy possesses unique techniques for demonstrating transcendental truths. A sec-ond answer—and one that has great currency in England and America these days—is that philosophy does not possess such techniques, and that its distinctive subject-matter is the logic of discourse and inquiry itself, and nothing else. But it appears to me that one can grant that philosophy does not have its own distinctive first-order subject-matter in the way that physics or psychology do without going on to take the position that philosophers have no business commenting on primary subject-matter in an effort to indicate the relation of this subject-matter to ideal concerns. The systematic critique of human choices is a substantial and necessary enterprise, call it what you will. It has been called philosophy.

Of course, to carry on this enterprise, philosophers have to take the trouble to study substantive fields. Moreover, people in these fields, even though they are not commonly known as philosophers, are also free to raise philosophic questions focused on methods and values. They have frequently done so, and often done so very well. Nor is it easy to tell a man engaged in inquiry—even if he is a philosopher by profession—to stop himself in midpassage and refrain from making any empirical findings or developing any useful factual generalizations or theories. In the end, it seems to me, the arguments about what is and is not to be graced with the name of "philosophy" are useful if they indicate the distinctive logical character of philosophical conclusions, and if they instruct philosophers in their responsibilities to other disciplines. But these arguments are pernicious when they yield an insulated view of philosophy which is, in effect, nothing more nor less than a disguised recommendation for the bureaucratic division of intellectual labor.

The philosophic function is different from other functions. But it seems to me a sorry and unrealistic proposal for the division of labor to say that a philosopher oversteps his jurisdiction the moment he steps into empirical waters. Such a restriction is not likely to advance the cause of philosophy; it

is not likely to advance the cause of knowledge, which has frequently made major advances because people have ignored lines of administrative convenience established between disciplines; and it prevents philosophy from serving its classic function as a critic and gadfly in the intellectual community, and as the enterprise aiming at a rational and organized commentary on the central themes of human experience.

It is more than possible that Mr. O'Connor agrees with all of this. But the quickness with which he has dealt with Professor Ulich's book, and his confessions of perplexity about the nature and intent of the book, have encouraged me to think that what he has failed to say may be worth saying. I have taken the liberty of writing at such length, indeed, because I think the issues raised by Mr. O'Connor's review are of very great importance for the future of philosophy as well as for the future of the philosophy of education.

Columbia University

KINGSLEY PRICE

It is not inconceivable that a book review should serve some worthwhile purpose. It might enable the reader to comprehend the nature of the book reviewed; and consequently, to make a more apt judgment upon it for himself. Here, I shall endeavor to make clear the nature of Professor Ulich's *Philosophy of Education*, and to suggest some criteria which are pertinent to the reader's critical appreciation of it.

We give the word "philosophy" and its fellows to activities of two kinds as well as to their results—to analysis and speculation as well as to analyses and to the theories which speculation yields, i.e., to ethics, aesthetics, metaphysics, epistemology, and to logic.¹ Some philosophers content themselves with the endeavor to clarify ideas, otherwise obscure; their efforts culminate in analyses of the ideas which give them trouble. These philosophical doctrines do not pretend to material improvement in knowledge or innovation in moral and aesthetic insight. Several of the shorter Platonic dialogues and many writings of our own day manifest this first part of the reference of the word "philosophy." Other philosophers, while they seldom eschew analysis, endeavor something more. They direct their speculation upon the world and

¹ It is somewhat strange, but obviously convenient, to describe logic, here, as speculative theory. But it is not to the point, here, either to show why it is strange or to deal at all with the question whether logic ought to be classified in the speculative part of philosophy. It plays little or no role in determining the notion of "philosophy of education" which is my intention here.

upon the value for human life in it. Their speculation culminates in assertions which, for them, it also guarantees; and these assertions, they regard as justification for, and explanation of pre-philosophical thought about the world and value. The writings of St. Thomas and John Dewey exemplify this second part of the reference of the word "philosophy." The point to notice, here, is that the activity and product which tradition calls "philosophy" is both analysis and speculation, analyses and speculative theories; and (what is pretty obvious) that most philosophical writings contain both analyses and speculative theories—frequently not very easily distinguished one from the other.

A theory of education contains statements of two kinds. Some describe the ways in which the world proceeds and are made acceptable or unacceptable by its observation. Others recommend to our efforts certain goals and paths for reaching them in or through that world, and these recommendations depend upon the statements of fact about the ways in which the world of nature moves. Education is the transmission and improvement of non-physical aspects of a culture; and a theory of education consists in a set of recommendations as to what should be transmitted and improved, why it should be so, and by what means, together with a set of statements of fact, psychological, economical, historical, and what not, in light of which such recommendations may be acted on.

Theories of education are not philosophies. That democracy is good, that we ought to avoid homogeneous grouping in order to secure it, that students should be instructed in current affairs in order that their ballots should be informed—these typify the recommendations of one theory of education. But they are not, as such, philosophical statements. The most unthinking may advance them; and this demonstrates, one hopes, that in themselves they possess no philosophical character. What they lack in their failure to be philosophical is two-fold: an extended justification and thus a derivative relation to a philosophical theory, and the analysis required to remove whatever obscurity their terms may harbor. Similarly, the statements of fact in a theory of education are not philosophical. That quick reward enhances learning is psychology, not metaphysics or epistemology. A statement is philosophical if it is the analysis of some obscure idea, or if it appears in the context of an ethical or aesthetic justification, or a metaphysical or epistemological explanation.

Still, theories of education are not, naturally, marked off sharply from philosophies. As the "in order to" clauses of the statements about democracy show, a theorist of education may attempt, to some extent, to justify his recommendations without becoming a philosopher. Moreover, the statements of fact which he advances show, if correct, that his ideals are not impossible of

fulfillment. And a brief or occasional effort at analysis does not lead us to call his theory "philosophical" rather than "educational." Between a theory of education and a philosophy—the analytic and speculative thought which would clarify, justify, and explain its recommendations and statements of fact—there is a difference of degree; and while they are plainly distinct when this difference is great, any distinction between a theory of education and philosophy when the difference is small requires a somewhat arbitrary decision.

Any work in philosophy of education falls in both of two dimensions. The first runs from analyses at one extreme to speculative theories at the other, and it is formed by reference to the relative amounts of, or emphasis upon, analysis and speculation embodied in all such books. Some such books approach the state of being purely analytic; others, of being purely speculative; and others still, of being more analytic than speculative, more speculative than analytic, or somewhat near the middle between the two extremes. Thus, St. Augustine's *The Teacher* falls near the extreme of analysis; Comenius' *The Great Didactic*, near the extreme of speculation; and Plato's *Republic*, near the middle, between the two. The second dimension runs from theory of education at one extreme to philosophy at the other; and is formed by the relative amounts of, or emphasis upon, theory of education and philosophy. Some books approach the condition of exhibiting little philosophy, but much theory of education; others, that of little theory of education but much philosophy; others still, that of more theory of education than philosophy, or more philosophy than theory of education, or a rough equality between the two. Thus, Rousseau's *Emile* approaches the state of exhibiting little philosophy but much theory of education; Locke's *Essay*, that of much philosophy but little theory of education; and Dewey's *Democracy and Education*, that of approximate equality between the amounts of each—the mean between the two extremes of the dimension.

Works in philosophy of education may be ranged according as one falls closer to analysis or to speculation than do others, and according as it falls closer to theory of education or philosophy than do its fellows. And we may understand such works in this way even though the basis for ordering them in these dimensions is only suggested here and worked out in no detail.

Professor Ulich's *Philosophy of Education* is typical of works on the subject, and falls into both their dimensions: nearer to speculation than analysis, and nearer to theory of education than to philosophy. It contains two parts. The first, "The Theoretical Groundwork," is more nearly speculative philosophy than analytical; and it contains, as well, a good many non-philosophical parts, frequently historical passages concerning the development of philosophical thought, pedagogical practices, etc. The second part, "Education in Action," is more nearly a theory of education than a philosophy; and it contains,

as well, several references to factual statements, not strictly philosophical, which occur in the first part. In the book as a whole, a dominantly speculative philosophy is advanced to justify and explain the statements of a theory of education. However, the latter receives more emphasis and attention than does the philosophy which would support it.

In "The Theoretical Groundwork," Professor Ulich advances a metaphysical explanation of the biological view that certain widespread factors are basic to human life and conduct. These factors result from an indescribable, but none the less perceivable metaphysical tendency toward totality. This vitalistic urge enables man, despite egoism and nationalism, to transcend himself in a world community; and achieving this community is the ultimate good proper to the evaluation of all human conduct, especially to teaching and learning. (pp. 5-7, 56-57, 140-141)

The second part, "Education in Action," includes some statements of a factual kind concerning the history of education; the condition of the teaching profession in America—of teachers, students, and administrators; the legal status of religion in the schools; etc. Its chief emphasis, however, lies on the ways in which teaching and learning ought to be directed in light of these facts. Professor Ulich holds that while the public schools should not give religious indoctrination, they should foster a naturalistic, humanistic piety toward man and the cosmos; that individuality should be developed through instruction in the arts, both liberal and fine; that this individuality should be directed toward realization in a world community in which the best and characteristic traits of humanity are expressed; that the administrator's duty is ". . . to provide the moral support which makes it possible for the teacher to discharge" his duty of thus humanizing and civilizing the young (p. 267); and that fulfilling this duty requires that teachers follow the recommendations concerning method (he calls them "postulates") explained in Chapter 12.

The philosophy in Professor Ulich's book is a metaphysics and ethics of idealism. It is much more speculative than analytic. His theory of education is far from philosophical. It recommends that the world community should be striven for, and that certain pedagogical procedures be adopted because they make for it. It advances some statements of fact in light of which these recommendations appear possible of fulfillment. But while the theory of education is far from philosophical, it is fairly clear, nonetheless, that the author supposes that metaphysics explains his educational theory's statements of fact, and that his ethics justifies its recommendations.

What criteria shall we employ in estimating the value of a book in philosophy of education? It seems reasonable to hold that necessary to its excellence, in some degree, is its approach to at least one preferred extreme of the dimensions into which it falls. Some hold that analysis is better than speculation;

or theory of education, than philosophy; or both the first and the third together, than the second and the fourth. Others prefer other extremes or their combinations. "This book is more analytic than speculative," "This book is more speculative than analytic," "This book contains more theory of education than philosophy," "This book contains more philosophy than theory of education"—these statements typify one class of those advanced to show that a philosophy of education book is good in at least some measure; and it is clear that their probative force depends upon a preference for the extreme near which each locates its book. For one who prefers analysis to speculation, a book containing no analysis can not be good; while a book containing some of it may be good in a corresponding degree. And so, in like manner, for one who prefers speculation to analysis, or theory of education to philosophy, or philosophy to theory of education. Propinquity to an extreme preferred does not, of course, provide a sufficient condition for the excellence of the book judged; the latter may be poorly analytic or speculative, or poorly educational or philosophical. It seems, however, that in the absence of this propinquity, i.e., if it falls at the extreme opposite to the one preferred, such a book can possess no excellence whatever; that this propinquity is a necessary condition therefore for the excellence, in some degree, of any book which lies between analyses and speculative theories, and between theory of education and philosophy; and that it provides a necessary criterion, therefore, for judging the excellence of books in philosophy of education—a necessary criterion which grows out of their nature.

The use of propinquity to a preferred extreme as a necessary criterion for judging the value of a book, however, contains this difficulty: that since preference varies from critic to critic, reference to it allows for judgments which disagree. A book full of analysis may be excellent to a high degree for one who prefers analysis to speculation, but can possess no degree of excellence whatever for one who prefers speculation. And a book filled up with theory of education as opposed to philosophy would be variously judged by variations in preference for those subjects. Philosophers could avoid this subjective variation in judgment if they could show that some extremes ought to be preferred to others, and some have embarked upon this task. Thus, some have argued that analyses ought to be preferred to speculative theories on the ground that speculative theories, except for such analyses as they may incidentally contain, are unintelligible or meaningless; while theory of education ought to be preferred to philosophy on the ground that the latter too easily involves speculation. The proper conclusion is that the more nearly a book in philosophy of education approaches a theory of education, and the more nearly such philosophy as it contains approaches analysis, the more valuable it can be, since, as these approaches become closer, the book pro-

gresses farther from the meaninglessness in which the combination of speculation (as opposed to analysis) and philosophizing (as opposed to educational theorizing) terminates. Propinquity to the preferred extremes of analysis and theory of education is a necessary criterion for the goodness, to some degree, of a book in philosophy of education provided that the opposed extremes are unintelligible; for one ought to prefer clear, intelligible theories of education which may be true and valid to meaningless philosophical theories which can not possibly be either.

However, that speculative philosophy concerning theory of education is meaningless is a view which can not be defended against its opponents; consequently, that analytical philosophy of education ought to be preferred to it is a view which can not be demonstrated on that ground. That demonstration would require an argument of the following form: all sentences which have a certain trait are also meaningless; the sentences of speculative philosophy have that certain trait; consequently, those sentences are also meaningless. In recent times, that certain trait has variously been regarded as "unverifiability," "unfalsifiability," and others; and many philosophers have thought that the presence of one or other of these traits demonstrated the presence of meaninglessness in the sentences which harbored it, while its absence, at the very least, guaranteed the possibility of the presence in them of meaningfulness. But arguments of this form can never yield legitimate persuasion. For anyone who understands them, the sentences of speculative philosophy are either meaningless or meaningful. If they are meaningless, no argument of any kind can persuade him to that view; one can not be persuaded to a belief he enjoys already. If they are meaningful, but also unverifiable, unfalsifiable, or what not, he will deny the first premise of the argument—that all sentences which possess the certain trait are also meaningless. So long as unverifiability and its fellows are regarded as traits different from meaninglessness and therefore as criteria or tests for it, their presence in a sentence can not legitimately persuade one of its meaninglessness; so long as such traits are advanced as criteria for meaninglessness, that advance must fail.² Theories of meaninglessness may clarify and embody views we entertain on that subject independently; but arguing against views different from one's own, on this subject, can never legitimately divorce their adherents from them. We can not legitimately persuade anyone to the view that sentences of a certain sort are meaningless; and we can not, therefore, argue that analytic philoso-

²If unverifiability or any other trait is regarded as yielding a definition of the word "meaninglessness," then, it is necessary to hold that whatever is unverifiable, or what not, is meaningless. But this definition of "meaningless" is wholly arbitrary, out of keeping with the millennia of conversation of a speculative kind, and quite devoid of any legitimate power to eliminate that conversation from human affairs.

phy of education ought to be preferred to speculative on the ground that the latter is meaningless or unintelligible.

It is difficult to imagine any other reason than the meaninglessness of its opposite for arguing that analytical philosophy of education ought always to be preferred to speculative. Particular situations may yield reasons for that preference with regard to them. The needs of a particular place and time may make analysis more useful, then and there, than speculation. But that, in general, one ought to prefer analytical philosophy of education to speculative seems based on the one argument examined and found wanting.

Nor can one argue that speculative philosophizing about theories of education ought to be preferred to analysis. One who prefers digging over other activities does not include among the latter that of sharpening the spade. When this is necessary, it is not opposed to digging, but rather, regarded as a part of that activity when successfully carried on. And if the spade is already sharp, sharpening it is not possible. One may prefer philosophical speculation about education to driving a bus; but he cannot prefer it to clarifying those concepts which he employs in the activity of speculating if his preference is reasonable. If these are not obscure, they can not be analyzed; but if they are, analyzing them is a part of speculation when successfully carried on.

Propinquity to a preferred extreme is a necessary criterion for judging the value of a book in philosophy of education; and it seems impossible to avoid the subjectivity of judgment which this criterion permits since it seems impossible to find good reasons for preferring over others one or several of the extremes of the dimensions into which such books fall. The proper conclusion seems to be that while the goodness of a book in philosophy of education requires that it be near one preferred extreme, no critic is entitled to demand that it fall near the extreme which he prefers himself.

We cannot hold that because Professor Ulich's *Philosophy of Education* approaches the extremes of speculative theory and of speculative treatment of theory of education, it cannot be a good book in that field; for some hold, precisely, that propinquity to these extremes is necessary to the excellence of any book in philosophy of education. But propinquity to any extreme is a necessary criterion only; and any critic must admit that the propriety of the judgment that such a book is a good one requires that it satisfy other conditions as well. Such a book, it might be said, for example, should be timely in its recommendations, clear in its organization, and excellent in its style. It is my view that Professor Ulich's book contains recommendations which are of great importance for the chaos of ideologies and nationalisms which constitutes our time; that if the different elements of his thought were more clearly distinct one from the other (if e.g., the speculative ethics and metaphysics were more clearly distinguished from the recommendations and statements

of fact), the organization of his book would be more evident; and that the earnest style of the writing is quite appropriate to the author's sympathy with a struggling humanity.

Still, I have not argued for this view of Professor Ulich's book. Rather, I have advanced a view as to the nature of any book in philosophy of education; a view as to the necessity of a certain criterion in judging the value of any book on that subject; and the view that preference for one kind of philosophy of education cannot be taken, reasonably, to invalidate preference for another—in particular, that one cannot by reason persuade one to give up speculative theories on the ground of their meaninglessness. If any reader is helped toward a balanced judgment on Professor Ulich's book or any other in philosophy of education, my purpose in offering this discussion will have been accomplished.

The Johns Hopkins University

The Editorial Board welcomes comments on articles, reviews, and letters that have appeared in the REVIEW. Communications should be addressed to: HARVARD EDUCATIONAL REVIEW, 8, Prescott Street, Cambridge 38, Mass. Letters from readers will be published, or published in part, at the Editors' discretion.

To the Editors

GUIDANCE— AN EXAMINATION

To the Editors:

I just wanted . . . to congratulate you on the recent Guidance issue of the REVIEW ["Guidance—an Examination": Fall, 1962]. It is one of the finest collections of essays on the subject I have read.

The issue editors, particularly, are to be commended for the effort that must have been required. It has given the Guidance field a substantial contribution.

ROBERT SCHWITZGEBEL
*Bureau of Study Counsel,
Harvard College*

To the Editors:^{*}

I have read, with considerable stimulation and pleasure, your Special Issue on Guidance. Guidance is, indeed, a spe-

* The following letters by Professors Super, Patterson, and Arbuckle were written at the invitation of the REVIEW.

cial issue these days, and your contributors have dealt with it in an original and important manner.

It is true that my reaction, after reading the first four or five articles, was that the subtitle of the issue was a misnomer, for I found no "examination" of guidance. The introductory papers deal with what might or should be, depending upon the point of view, not with what is; they serve, if the reader perseveres, to shake him out of his usual rut in thinking about guidance, whatever that rut may be—the contrasts between the *becoming* of Allport, the *reacting* of Michael and Meyerson, the *being* of van Kaam, and the *relating* of Rogers are sufficient to insure that.

But the reader, if he is a working counselor, may wonder what all this has to do with his counseling in school, college, or community agency. If by any chance he put the issue down at this point, perhaps he will in due course go back and resume his reading, for the working counselors who contributed the following papers have done a good deal

to bridge the gap between theory and practice in the schools. Their contributions cannot all, of course, be responded to in one mere letter, but I am moved to comment on certain significant points.

For more than twenty years psychologists have been analyzing electronically recorded interviews and drawing conclusions concerning counseling. But, let me say it briefly and categorically, the interviews they analyzed were not *counseling* interviews, they were *psychotherapeutic* interviews, as evidenced by the changes in the titles of Carl Rogers' books over the years. Psychotherapists have misappropriated the term "counseling" in order to make their work palatable to a larger public, and in doing so they have done counseling a real disservice. The disservice has resulted partly from their error in hiding behind a more innocuous term, partly from the error of counselors in not clarifying the nature and methods of counseling. Let me be concrete: I know of no scientific study of the methods or processes of counseling as done in schools or community vocational counseling services, and of very few done with non-therapy clients in college counseling centers. What justification is there for assuming, as is so often done, that educational or vocational counseling, that counseling for decision-making as Leona Tyler calls it, involves the same processes and dynamics as therapeutic counseling? I know of none.

Just as Wrenn questions, quite appropriately, preparation in teaching as a basis for school counseling, so I question the appropriateness of training in psychotherapy for the practice of counseling. Instead of helping people to qualify, they disqualify, for counseling concerning choice and development.

Hence my enthusiasm in reading

Hummel's paper on ego-counseling, despite my dislike for the genuflection implicit in his qualifier. At long last a psychologist is carrying out a careful analysis of counseling as done by properly trained counselors in a typical counseling setting! Perhaps in due course we shall have a statement of principles of counseling, and a description of counseling methods, derived from practice and research in a real-life setting with students who are facing the normal developmental tasks of education. We shall await further results of Hummel's work with great interest.

Tiedeman and Field's bold position also stirs enthusiasm. Counselors do need to qualify to be, do need to become, equal partners with teachers and administrators in the academic enterprise. The authors' clear and penetrating analysis of the counselor's lowly state and of the changes which must be made in his qualifications before his role can change should have wide circulation and considerable impact. The description of what Harvard is doing in the education of scholars who will develop the profession of guidance shows that more is being accomplished than Tiedeman and Field, in a pessimistic moment, admit; I would claim that a few other institutions are also producing a few scholarly counselors ("not even Harvard" has a monopoly!). But the Harvard pattern of university-school cooperation is unique in school guidance, is paralleled only in some university counseling centers and in some VA hospitals. Perhaps more foundation support will in due course be found, to make possible similar innovation in other universities and other schools, including the two-year internship advocated by the authors. . . .

DONALD SUPER
Teachers College
Columbia University

To the Editors:

The variety of papers in this issue resembles a smorgasbord, and as is sometimes the case with a smorgasbord, may lead to some indigestion—or disquieting upset—in some readers. Because of the variety, I shall not attempt to comment on each article, but instead I would like to state an issue or problem which arises from several of the papers.

Perhaps I should identify my perceptual frame of reference, so it will be clear where my preference and biases lie. My position is that of Rogers, as expressed in his present paper and elsewhere. I would only suggest that while, as he emphasizes, the quality of the relationship is crucial in counseling, this relationship is not wholly independent of training, theoretical orientation, or techniques. That Rogers would accept this seems apparent in his belief that education and training are necessary, even though some changes are indicated.

It is no accident, therefore, that I align myself with Allport. His distinction between man as a reactive being and man as a being-in-process-of-becoming is a statement of an issue which divides the contributors to the special issue. All counselors should read his detailed and clear exposition of the issue in his recent book (*G. W. Allport, Pattern and Growth in Personality*).

The lines are being drawn between two conceptions of counseling—indeed of all human relationships—on the basis of this issue. Rogers and van Kaam take their stand for the concept of man as a being-in-process-of-becoming. Michael and Meyerson choose the concept of man as a reactive being. (And, strange as it may seem, they end up as bedfellows with the psychoanalytic and the depth approach to human behavior.) There are no good or generally accepted terms to designate counseling based upon

on these two approaches or points of view regarding human behavior. I have called the former the understanding approach and the latter the manipulative approach to human relationships, though these terms are not entirely satisfactory (C. H. Patterson, *Counseling and Psychotherapy: Theory and Practice*).

The paper by Michael and Meyerson is an excellent summary of the principles of operant conditioning. It should be read by all counselors. But counselors should also be aware of the limitations and ethical implications of this approach, and of the fact that it is not the only method of behavior change. The paper is overly optimistic; the limitations of conditioning are well pointed out by Mowrer (O. H. Mowrer, *Learning Theory and Behavior*). The statement that "the ethics of deliberately guiding human beings to personally and socially fulfilling lives may not be a problem for any except a relatively small group of counselors committed to an inner-directed philosophy and seemingly non-directive procedures" indicates that the authors have been inadequately conditioned by reality or that their perceptions are influenced by their needs to reduce the threat of the number who actually hold this position, which includes almost all if not all the other contributors to the Special Issue.

Michael and Meyerson apply the operant conditioning of B. F. Skinner to counseling and psychotherapy. Skinner is the modern J. B. Watson, and in fact has outdone Watson in his claim: "Give me the specifications, and I'll give you the man!" (B. F. Skinner, *Walden Two*, p. 243). One must ask for the evidence that conditioning changes complex psychological behavior, such as attitudes, feelings, and beliefs, and that it changes behavior on a permanent basis. So far it appears that all conditioning extin-

guishes, sooner or later, without reinforcement.

The trouble with the Michael and Meyerson point of view is not, to paraphrase Allport, that it is wrong, but that it is partial. It is a "nothing but" approach, compared to the "something more" approach of the understanding or relationship point of view. That (verbal) operant conditioning does take place in the counseling interview is not to be denied. The counselor should be aware of this influence—aware and clear about what he is doing, what kind of behavior he is conditioning, or shaping. He should be clear about the purpose or goal for which he is using this method—whether it is to free the client to control his own behavior, or to directly condition the specific behavior of the client. It appears also that more than (verbal) operant conditioning is necessary if counseling is to be effective. A more extensive consideration of this problem will be found in a forthcoming paper, "Control, Conditioning and Counseling" (*Personnel and Guidance Journal*, in press).

There is a further problem involved, an ethical problem. To the extent that conditioning is possible, one must ask: is this method of changing and controlling the behavior of others desirable? The problem is a real one, in spite of the claim of Skinner and others that since force or the threat of force are not used, and the results are happiness, productivity, and other socially and personally desirable goals there is no ethical problem involved. The result is also loss of freedom, lack of awareness of choice, and lack of responsibility in the resulting behavior.

And if it is possible to change behavior by other methods, methods which preserve the freedom, awareness of voluntary choice, and responsibility of the individual (and Rogers presents evi-

dence that this is possible) then which should we choose?

Do we want persons or automatons?

C. H. PATTERSON

University of Illinois

To the Editors:

It was with some trepidation that I accepted the invitation to react briefly to the [Guidance issue of] the REVIEW, since I am not an alumnus of you-know-where, nor had I, up to this point, read an issue of the REVIEW. This issue, however, is well worth the reading.

My most immediate impression after reading it was that the "man" who was being discussed was a somewhat different fellow to each author, and that each author gave some indication of his own conception of the relative importance of the individual man as compared with the man's product—the culture in which he lives. Michael and Meyerson were giving a fairly standard version of what I would describe as the empirical man, much the same as Allport's "reactive being." This is the man who, to Rogers and van Kaam, and, I think, to Allport, is not *really* man at all. Significantly enough, Michael and Meyerson would almost seem to agree, when they say: "The phenomenon with which counselors deal . . . is behavior. . ." Counselors, to them, do not deal with the Gestalt man, the complex being, the person-in-being, the existential self, who carries with him, as part of him, his loneliness and fear and anxiety and hope and compassion and courage. Rather, they deal with behaviors, and they appear to accept their right, and their responsibility, to modify and to change these behaviors to their particular model, which Shoben would probably describe as a somewhat limited middle class version of "the good." The manipulative school counselors they describe are, unfortu-

nately, all too common, and I would guess that a sampling of school counselors would react more favorably to the chapter by Michael and Meyerson, than they would to those by van Kaam, Allport, and Rogers.

This is the frightening part of science. For Michael and Meyerson man would seem to be nothing. He is a set of behaviors to be manipulated for some "good" determined by someone. This is the autocracy of science which may well have replaced the autocracy of religion, and its result can be the degradation and the suppression of man.

The degree to which a counselor can trust another is a measure of the extent to which he can trust himself, and it would sometimes seem that many behavioral scientists are comfortable with their empirical man, whom they can control and manipulate, but uncomfortable with the person-in-being because they can never be quite sure who he is or what he is going to do. And yet, I must ask myself, "Why is it that the man of Rogers and van Kaam and Allport is the one who seems very real to me, the one I feel I know, to some degree at least, while the empirical man of Michael and Meyerson just does not seem to be the fellow whom I have known for the past many years?" It is unlikely that any of the various authors would claim any monopoly on love and compassion and understanding for their fellows, and yet, one might wonder—is there any difference? One must be concerned too, at the discrepancy between the versions of the learned authors as to who man is, what *he* can do, and what *we* should do with him and to him. The knowledge that man has today gives him unheard-of power which can be used to suppress or to free, and it would seem to me that the school counselor, if he really believes in the freedom and integrity of individual man, must come to feel that

the fellow human with whom he is working, is, like him, a total being, not a set of behaviors. If one believes that man's insecurity is such that he must increasingly seek certainty, rather than being able to be helped to live with his uncertainty, then it would seem almost certain that the empirical scientist will ultimately become the High Priest, and his people will exist, snug and comfortable, from life to death, but they will not, of course, live. But this person is not the existential man, who is the determiner of his culture, the one who always carries within him the spark of change, the one who is always free, even in a determined world. This is the *real* man with whom the counselor experiences living.

DUGALD S. ARBUCKLE
Boston University

PAROCHIAL SCHOOLS—
DO THEY WORK?

To the Editors:
The vexing debate regarding Federal aid to church-related schools [see George R. La Noue's article, "Religious Schools and 'Secular' Subjects": HER, Summer 1962] raises an equally polemical thesis. Does the parochial school achieve the religious ultimates it proclaims and is not its indispensability based on obsolete pedagogical thinking?

If one were to assume the position that neither theology nor philosophical doctrine . . . are intellectual fare for the young, the entire edifice of the religiously oriented school would collapse like a house of cards.

. . . In very many cases, religious educators ignore the law of sequential maturative growth when they attempt to teach abstract principles far beyond the life experience of the child. For a young mind that is groping for an acculturation with the concrete world

about him, the supernatural and the obscure serve no pedagogical purpose.

The need for spiritual values in our society today, and the objectives of the religious school itself, can be fostered to a greater degree through postponement in the educative process of an ordered preoccupation with divinity. Most often, the ingestion of abstruse concepts at too early an age begets misunderstood principles and perverse attitudes, and when the riper years emerge

for religious contemplation in a real sense, the desire for this has lost its lustre.

Perhaps our founding fathers intuitively had this in mind when they excluded religion from the public school curriculum. Certainly they knew that the complex facets of religion in a pluralistic society could not easily be handled at an elementary level. . . .

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REPRINTS AND BACK ISSUES • The Editorial Board is pleased to announce that the REVIEW has recently entered into an agreement with the Johnson Reprint Corporation of 111 Fifth Avenue, New York 3, N. Y., for the reprinting by photo-offset of the back volumes of this journal. Readers and institutional subscribers are referred to the Corporation's advertisement in this issue which specifies the reprinted volumes and issues of the REVIEW which are now available from them.

Back issues of this journal from Vol. 30, No. 1 (Winter 1960) to the current issue are available in the original edition from the Editorial Office of the REVIEW. All other back issues of the original edition up to and including Vol. 29 No. 4 (Fall 1959) which are still in print are available from the Johnson Reprint Corporation at their above address.

CORRECTIONS • So many changes were made in the REVIEW last issue that a few stole in inadvertently. Would you make the following corrections to your Winter 1963 issue? Robert Ulich's book, referred to on pp. 4 and 116, is entitled *Philosophy of Education* (not *Philosophy and Education*). Neal Gross (p. 152) has taught at Iowa State (not Ohio State) and the University of Minnesota, as well as at Harvard. In Ross L. Mooney's article, on p. 44, the fifth line of the last paragraph should read: "men who are approved for financing by special agencies. This comes".

Book Reviews

PHILOSOPHICAL ISSUES IN ADULT EDUCATION.

Horace M. Kallen.

American Lecture Series, Charles C Thomas, Springfield, Illinois, 1962.
99 pp. \$4.75.

This is a book of sensitive concern for adult education not in the pottery making, basket weaving sense in which we often think of it nor in the night school vocational training sense that it often becomes, but writ large in bold strokes as the education of Man.

Sketchily tracing the historical developments on the American scene of the growing demand for education beyond formal schooling, Horace Kallen sees adult education as the new frontier in education offering the greatest challenge to educators of the future and indeed, essential to the attainment of the "American Dream" of not only economic but cultural betterment and the "American Idea" of equality among

men. He populates his essays with the haunting, spectral images of those who dually partake in the "daylife" of work which is "routinized, limited, intensive, and above all repetitive" and in the release of "nightlife" which is "consumatory, restorative, and liberating." The adult is the worker, one who fends for himself and who hungers not just for relaxation and recreation in his "nightlife," but also brings to these mass media filled hours the human drive to make sense of his role and destiny in terms of some "ultimate ideology." Closed into the narrow world of job and home, his mind narrowed and not broadened by his formal education, the adult, as Kallen sees him, is in need of a form of education which will ultimately widen his perspectives and free him from his microcosm first by getting him to "unlearn" all that makes him static in mind and spirit, then by leading him to develop his curiosity so that he will explore and consider new and

grand ideas which he finally can relate to himself in his own context of home and job thus razing the walls of his prison.

Kallen subtly explores in brief the different student-teacher relation called for by the circumstances of adult education and questions the traditional notion of subject matter with regard to the teaching of the adult and the concept of living as learning. Reaching back in time to the Greek notions of liberal learning and amateurism, Kallen sees the needs of "nightlife" to be answered by an education which is truly liberal, freeing thought and spirit from the molds of routine and conformity, and amateurish in that it is "engaged in for the love of it, for the fun and honor and glory of it. . ." Summing up the prime function of adult education, Kallen writes:

For the learner it is the consequential development, by acts of well-ordered inquiry, by impartial yet sympathetic scrutiny of alternatives, by such trials as he can make and errors as he can survive, of a vision of existence and destiny which shall with its perspectives ennoble and transvalue the meanest, the most routine and inconsequential events of his day, and then to bet his life on his vision. For the teacher, it is to lead the learner to achieve this development by free exercise of his own powers, at his own risk and on his own responsibility. (p. 20)

This is a book of noble motive, purpose, and content in its attempt to provide a wider perspective and broader philosophical base which the area of adult education sorely needs, but it is also a book which, in many ways, can frustrate and irritate a reader. First, its greatest shortcoming is that it is a collec-

tion of four essays written over the last ten years and to read the book in one sitting is like taking a shower in redundancies using a Greek bar of soap manufactured by the J. Dewey Co. Not only are the essays permeated with the oft heard ideas of the ancient Greeks and Dewian philosophy, but further, and most disturbing, each essay repeats concepts and constructs mentioned and/or elaborated upon in the other essays with no logical order of development. The same points are made over and over again in the same form and same terminology. One almost wishes that Kallen had temporarily left the non-disciplinary atmosphere of the New School for Social Research, locked himself in a good, old fashioned, single-discipline philosophy office, and in a technically disciplined manner, rewritten his four essays into one cohesive work which developed its central ideas in an organized way.

Second, the reader may also find frustrating the failure on Kallen's part to clearly and precisely identify the philosophical issues in adult education as his title (taken from the second essay which also fails in this task) seems to promise. To find issues summarily identified as "What is all this learning and teaching for?" or as the "issues of strategy, tactics and logistics of adult education" is hardly to be philosophically enlightened by a precise rendering of problems in adult education. In fairness to Kallen, however, he does identify as a central issue the crucial choice of a basic philosophical system to underwrite answers to questions in adult education like, What should be the relation of teacher to learner? Why and what do we want to teach the adult? etc. Unfortunately, however, immediately after showing the importance of this choice and indicating that "much of the history of educational theory

seems largely to be a Hobbesian War of all against all," without further consideration of this problem, Kallen launches into an espousal of his own "self evident" "ultimate ideology" which sounds largely Dewian with a little bit of Lucretius thrown in for the picturesque metaphysics Dewey doesn't bother with in his system and which Kallen is "willing to bet his life on" as the answer to problems in adult education.

The curious thing that comes from this outpouring of a personal faith with its application to hazily defined problems is that the answers may be valid without buying Kallen's system or indeed could have been arrived at by means of many other systems or personal faiths based on certain traditional notions of Man and learning. In a word, Kallen's formal philosophy seems strangely unnecessary in what he purports to be a discussion of philosophical issues in adult education.

One may also wish to take exception to Kallen's recurrent claim that formal education acts as a closure of men's minds rather than as a liberalizing agent. This is an extreme charge to make as a blanket assertion against the American educational system without offering any arguments or evidence in its support. However, even if one were to agree with Kallen that minds are closed in the education of American youth, one need not also agree that the answer to this problem is to free the mind of the adult *after* he has received this stultifying education in his youth by approaching him in a special way. Rather, one could argue quite cogently, I think, that the formal agencies of youth education now extant should take note of this charge, evaluate it, and if they find that they are indeed closing minds and not opening or freeing them, change their ways to conform to this end

which they all espouse anyway. Being against closure of minds and for the freeing of them is like being against sin and for virtue. I am sure there is no issue here. Furthermore, I think Kallen too quickly writes off our schools as "transmitter of the culture" to mean that the school acts to close students' minds by forcing them into the mold of our heritage and our society. He does not seem to realize that a dominant part of that cultural heritage of our society is the ideal of a true liberalizing education which most certainly includes the aim of freeing the minds and spirits of those whom we educate.

Uncomfortably missing from Kallen's consideration of the unique character of the adult is a wholehearted recognition of the fount of life experiences which an adult can bring to his adult education classes as opposed to youth's meager supply of the same commodity. Kallen would do well to take a cue from Sir Richard Livingston who, in *The Future of Education* (1941), discusses this tremendous asset of the adult and suggests cogent ways to capitalize on it in a formal educational system for adults. Whether or not one agrees with Livingston's proposals in this matter is not at issue here. Rather, for Kallen to have overlooked this significant aspect of adult equipment seems to be a cardinal sin of omission in the discussion of the learner in adult education. For if the adult can and does bring such a reservoir of experience to his further education, then this reservoir can and should be tapped by those who teach him so that the fields of his mind may be thus irrigated, ultimately bringing to fruit a golden harvest of knowledge which has personal meaning and significance.

In spite of the above noted irritations and shortcomings, Kallen's sincere concern with the education of the adult as

Man is impressive and permeates his four essays with an inspirational message. If he had only consolidated and regrouped his ideas perhaps allowing more space to his own experiences and what he has learned from them about the teaching of the adult, and if he had given more careful attention to the differences between the education of youth and of the adult, and finally, if he had only been more precise in his identification and discussion of the philosophical issues, his book would probably have made a greater impact on the educational community.

Kallen deserves to be read, however, not only by those in adult education who may have become a bit myopic in terms of not being able to see the grand design of the rug for having sat so long on one of its corners, but also by all educators who may have forgotten that education doesn't end when school is out.

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THOUGHT AND LANGUAGE.

Lev Semenovich Vygotsky.
Edited and translated by
Eugenia Hanfmann and
Gertrude Vakar.

Published jointly by *The Technology Press of Massachusetts Institute of Technology* and *John Wiley and Sons, Inc., New York, London, 1962. \$4.95.* [With (separately published) *Comments by Jean Piaget.* 14 pp.]

The name of Vygotsky, a Russian psychologist who lived from 1896 to 1934, has been known in the English-speaking world in two ways: first as the author of two singularly perceptive articles, one on language and thought in children, and one on the schizophrenic language,

which had been translated and published in American medical periodicals, and second, as the originator of the "Vygotsky test," a high-level concept formation test adapted for clinical use in 1937 by Hanfmann and Kasanin. It was known, however, that Vygotsky had left much more to posterity than only these things—the pity was that his writings were in Russian. His major work, *Myshlenie i rech' (Thought and Language)* was not published until a few months after his death. We are told that this work was not very well organized; even though Vygotsky had attempted to combine several previously written essays into a coherent whole, it was written in haste and in an involved style, contained much unnecessary polemical discussion, and was unsystematic in its use of references.

The present translation remedies all these defects. What we have is a book written in admirable English, every page of which presents something meaty and striking—whether it be a theoretical discussion, a critique of another's position, or a report of experimental findings. The seven chapters, even though recognizably originating from separate essays, can be read in a continuous sequence, indeed must be read in that way. For this transformation (it is much more than a translation), we have to thank Eugenia Hanfmann and Gertrude Vakar, the former a well-known psychologist of Russian birth who has resided in the U. S. since 1930, and the latter a professional translator.

Why, after twenty-eight years, bring out a translation of a work originally published in 1934? For one thing, a work of the character of Vygotsky's does not become obsolete in twenty-eight years, and perhaps not even in eighty-eight. The Soviet Union saw fit to republish Vygotsky's work in 1956, after long years of suppression or neglect, and

Vygotsky's thinking is today a major influence in Soviet psychology. But further, it can be said that Vygotsky's approach to problems of language and thought was far ahead of his time even at the first posthumous publication, both in the Soviet Union and in other parts of the Western world. In the United States, psychology was still mightily under the domination of stimulus-response theories (Vygotsky would have called them reflexological), and even the Gestaltist and Freudian positions did not readily admit the kind of cognitive theory espoused by Vygotsky. Only in the last decade has Western psychology turned its attention squarely in the direction of problems of thought and knowing; only in the last five years has the establishment of an organization with a title like the Center for Cognitive Studies not seemed slightly quixotic. The appearance of the Hanfmann-Vakar redaction, therefore, is timely. The book is a challenge to solve what Vygotsky calls the "focal issue of human psychology" (p. xxi)—the interrelation of thought and language.

Not all of Vygotsky's thought is still novel, of course, for it is not as though nothing had been accomplished in the psychology of thought and language in the intervening years. We hardly need to be supplied with the further "experimental evidence that word meanings undergo evolution during childhood" (p. xx) that Vygotsky offers as one of his major contributions. For whether we mean by "word meaning" the institutionalized correspondence between a symbol and some class of referents, or the "mediational process" that is said by some psychologists to occur in the individual in response to a word, we know rather clearly, at least in principle, the conditions under which word meanings change. In point of fact, Vygotsky does not report in any detail his

experimental evidence to the effect that word meanings change. One of the keenly disappointing things about the book is that it offers little information concerning the experiments that Vygotsky and his students did to support their conclusions. The style of writing in Russian psychology, then as now, shows little of the kind of concern with the exact particulars of methodology on which American behavioral science lays so much stress. We must be content, therefore, with the often striking and provocative formulations of Vygotsky, many of which are essentially hypotheses awaiting experimental check.

If I were asked to epitomize Vygotsky's point of view, I think I could hardly do better than to quote the final sentence in the book: "A word is a microcosm of human consciousness." (p. 153) Early in the book, the author had been at pains to indicate that his "unit of analysis" was the *word*—the total constellation embracing both the sound and the meaning. He avoided any breaking down of the word into "elements" such as sounds and aspects of meaning. The meaning of a word or expression, in his view, is not to be equated to a referent or thing to which it refers, because the same referent can be symbolized with different expressions like "the victor at Jena" or "the loser at Waterloo." "There is but one category of words," he writes, "—proper names—whose sole function is that of reference." (p. 73) A major part of his exposition is devoted to an explication of *meaning*; the treatment is almost philosophical in manner. Word meaning is the "internal aspect of the word" (p. 5), and in word meaning, thought and speech unite to form a "verbal thought." The basic problem of language and thought is to describe how thought and speech interact in the verbal thought unit, and to study how these

units develop and function.

Thought and speech are viewed by Vygotsky as independent processes, each with its own life and growth. We may accept Vygotsky's demonstration (Chapter IV) that there can be pre-linguistic thought activity (both in animals and in children) and also pre-intellectual speech activity (in children). Thought and speech nevertheless interact; at times, one is ahead of the other in development, while at other times, the positions are reversed. But "at a certain point these lines meet, whereupon thought becomes verbal and speech rational." (p. 44) This statement is not to be taken quite literally, however, for "fusion of thought and speech, in adults as well as in children, is a phenomenon limited to a circumscribed area." (p. 48) It must exclude cases like reciting a poem without thinking of its meaning or speaking "lyrically" under the influence of emotion.

The formal analysis of Vygotsky's exposition runs into a certain difficulty when we try to distinguish between word meaning as a "unit of verbal thought," and the *concept*. Although there are places (e.g., p. 5) where word meaning is spoken of as a "generalization," or where the term *concept* is used in connection with words (p. 7: "children often have difficulty in learning a new word not because of its sound but because of the concept to which the word refers," and p. 120, "The meaning of every word is a generalization or a concept"), the treatment of the term *concept* is carried out independently of the treatment of word meaning. Indeed, whereas Vygotsky supplies numerous definitional statements for the term *meaning*, he gives no formal definition of the term *concept*. We are thus left to infer the meaning of the term from Vygotsky's treatment of it. Such inferences as I have

been able to draw are not wholly satisfactory, and thus the somewhat informal organization of Vygotsky's writing becomes at times lamentable. It is more to be regretted because some of the most interesting and provocative materials in this book are those having to do with the development of concepts.

Concept seems to be a developmental term for Vygotsky. In the studies of concept formation carried out by his colleague Sakharov (whose name perhaps ought to be attached to the famous "Vygotsky" block test), "true" concepts were not formed until the period of adolescence—"seldom at first, then with increasing frequency." (p. 79) Earlier, the responses showed primitive syncretic forms of thinking, then "thinking in complexes," followed by the use of "potential" concepts before the "true" concept was attained. To be sure, the Sakharov block test uses "artificial" rather than "real" concepts; that is to say, it uses concepts based on contrived combinations of attributes like "small and tall" or "big and thin." But the same developmental phenomena are said to occur for "real" concepts such as those found in the teaching of "science" (actually, *social science*; Vygotsky's experiments often dealt with whether children could understand concepts like "exploitation").

Vygotsky borrows Piaget's contrast between "spontaneous" and "non-spontaneous" or "scientific" concepts—the former being the concepts formed naturally by the child on the basis of everyday experience, the latter being the concepts which the child is likely to acquire on the basis of specific, directed instruction. Thus, the child may acquire for himself concepts like those represented by the words "brother" and "flower," but he is unlikely to acquire concepts like "Planned economy is possible in the U.S.S.R. because there is no private

property . . ." without specific instruction. For Vygotsky, a "concept" is something essentially in the realm of thought, not words: apprehending a concept is apprehending a thought "behind" the word, and not at all identical with it. In this particular example, what he is concerned with is whether the child apprehends the relation indicated by the conjunction "because." He reports that children are often better able to complete sentences ending in *because* when the setting is "scientific" (i.e., social science) than when the setting is non-scientific and deals with "spontaneous" concepts, as "A boy fell and broke his leg because. . ." In the latter case, the child is likely not to be aware of the concept of "because" and will supply something like "he was sick" or "he went to the hospital." It is on the basis of this kind of evidence that Vygotsky makes the interesting suggestion that practice with "scientific" concepts transfers to "non-scientific" concepts in such a way as to accelerate their development. Thus, conceptualization in the non-spontaneous domain tends to run ahead of that in the spontaneous domain.

A hard-nosed reaction to this evidence would be to ask whether the results could not be explained on the basis of the increased verbal practice given in the "scientific" instruction as compared to wholly fortuitous amounts of practice with spontaneous concepts. Vygotsky's experiments deserve to be repeated with more adequate controls.

Like so many other treatments of the problem of language and thought, Vygotsky tends to get bogged down because of the failure to define terms precisely and operationally. If the term "concept" cannot be used consistently to mean the same thing, or if there are insufficient qualifications associated with its use, we cannot derive a series

of unequivocal propositions about it. Vygotsky juggles with a number of dimensions—the degree to which a concept is part of a system of thought, the degree to which it is within awareness and under conscious control, the degree to which it is formed as a result of instruction, and the degree to which it conforms to a "mature" or adult form, but he never clearly indicates to what extent "concepts" can be regarded as corresponding to "word meanings," and indeed, there is little consideration of the influence of language in the formation of concepts. This, to be sure, is a topic that has been taken up by a number of later Russian investigators, e.g., Luria, and Liublinskaya, as one may learn by reading Simon's *Psychology in the Soviet Union* (Stanford University Press, 1957) or Luria and Yudovich's *Speech and the Development of Mental Processes in the Child* (London, 1959). As far as his basic views on language and thought are concerned, Vygotsky offers not a fully-formed theory but some interesting components of a theory.

Let us turn, therefore, to some of the more interesting ideas that can be found in this work.

Although at times Vygotsky seems to espouse the kind of notion put forward by Piaget that there are natural constitutional limits to development, represented perhaps by a series of age-timed steps, he is much more willing than Piaget (both the Piaget of the early 'twenties—the one known by Vygotsky, and the Piaget of today) to allow the possibility of accelerating or at least strengthening the course of the child's conceptual development. What Vygotsky has to say about instruction (and he calls it that unabashedly) will be of interest and use to educators.

Instruction is one of the principal

sources of the schoolchild's concepts and is a powerful force in directing their evolution; it determines the fate of his total mental development. (p. 85)

He reviews, and rejects, three theories of the relation of instruction to development: (1) that instruction must hobble along after development, waiting for certain stages of development to begin or to be completed before it can do its work; (2) that development and instruction are identical, since development is nothing more than the accumulation of conditioned reflexes; and (3) that development has two interdependent aspects, maturation and learning. In connection with the last of these, he feels that Thorndike's critique of formal discipline "did not touch its valuable kernel" because Thorndike ignored qualitative differences between lower and higher functions of the mind. In Vygotsky's view, "the ability to gauge the length of lines may not affect the ability to distinguish between angles, but the study of the native language—with its attendant sharpening of concepts—may still have some bearing on the study of arithmetic." (p. 97) In this year 1963, we do not even yet have sufficient evidence positively to confirm or to deny this view, but it still seems reasonable if transfer takes place through identical elements. Indeed Thorndike's later writings show that he would probably have accepted Vygotsky's opinion.

Vygotsky's own "tentative" theory is stated by him as follows: "The only good kind of instruction is that which marches ahead of development and leads it: it must be aimed not so much at the ripe as at the ripening function." (p. 104) This entirely reasonable idea emerges, we are told, from four series of empirical investigations, described

all too briefly, in the teaching of various school subjects. Only one of these series will be mentioned here—the one that examined the levels of development of the "psychic functions" requisite for learning the school subjects—reading and writing, arithmetic, and natural science. This investigation disclosed, for example, that in writing (that is, composing, not merely handwriting) it is the abstract quality of written language that is the main stumbling block—not poor motor coordination or the like. The author also states, without citing evidence, that "our analysis clearly showed the study of grammar to be of paramount importance for the mental development of the child," apparently because it forces the child to become aware of grammatical concepts and to get them under conscious control.

To a few close students of the subject, Vygotsky's critique of Piaget's conception of the function of egocentric speech (in which the child "talks to himself") was already familiar from a brief translated article published in the journal *Psychiatry* in 1939. Vygotsky had suggested that egocentric speech, far from representing a transition from autistic speech to socialized speech, is rather a stage on the way to the interiorization of speech, "inner speech," or "silent speech." The evidence was ingeniously derived. It was shown that at a certain stage of development, egocentric speech normally occurred only when the child was in the presence of other children; in the absence of other children, it could be assumed that whatever thinking processes were occurring were accompanied by interiorized speech. "Egocentric speech" could occur under another condition: a child sitting alone and performing some activity like drawing would normally not speak, but if his task was interrupted, or if some diffi-

culty were interposed, egocentric speech would appear. Again, the interpretation was that in the silent period inner speech was occurring, but that when a difficulty presented itself the child would regress, so to speak, to the use of overt speech.

It is interesting now to find that Piaget himself, having had an opportunity to examine Vygotsky's postulations on egocentric speech, is completely willing to entertain them. His only reservation is that Vygotsky may have failed to recognize the parallel existence of another type of egocentric speech in which the child is truly talking "for himself," or perhaps (to take the suggestion of the French child psychologist Zazzo) "according to himself" (*selon lui*), a stage in which he has not truly learned to take full account of his audience. Piaget has a number of reservations, too, about other parts of Vygotsky's theory, but we shall not consider them here. Like Piaget, we can only close with an affirmation of our genuine respect for the extraordinary grasp of his subject and the penetrating insights exhibited by Vygotsky in this fascinating book.

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MORAL EDUCATION.
Emile Durkheim.
Edited by Everett K. Wilson.
The Free Press of Glencoe, New York,
1961. 281 pp. \$6.00.

The avowed motivation behind Durkheim's interest in moral education was his desire to establish a secular basis for morality. The sources of this motivation may be traced to the spirit of the times, manifest in secularization of the French schools as in the belligerent positivism of scientific thinkers. For Durkheim

morality is a natural phenomenon of society, like custom and rite: "...it consists in an infinity of special rules, fixed and specific, which order man's conduct in those different situations in which he finds himself most frequently." (p. 25) The task Durkheim sets himself in the first half of *Moral Education* is to describe this natural phenomenon and its function. The word "function" is significant here for its biological overtones. The analogy of biology and, indeed, the device of analogy, generally speaking, is never far out of Durkheim's mind, and it is fair to say that his thinking about the nature of morality is permeated by symbolism drawn from physical systems.

In describing morality, Durkheim distinguishes three basic elements. The first of these is *discipline* which confers upon the fabric of social life regularity and a kind of psychic security which Durkheim pinpoints with great sensitivity. "The totality of moral regulations really forms about each person an imaginary wall, at the foot of which a multitude of human passions simply die without being able to go further. For the same reason—that they are contained—it becomes possible to satisfy them. But if at any point this barrier weakens, human forces—until now restrained—pour tumultuously through the open breach; once loosed, they find no limits where they can or must stop. Unfortunately, they can only devote themselves to the pursuit of an end that always eludes them." (p. 42) Durkheim describes this pursuit in almost existential terms as a quest for the infinite and, in a more empirical vein, cites statistics on suicide in support of his text. "The notion of the infinite," he says, "... emerges during periods when the moral system, prevailing for several centuries, is shaken . . . without any new system yet contrived to replace that which has

disappeared." (p. 43) One of the pressing modern tasks, then, is to repair this lack.

A second element of morality Durkheim terms *the attachment to social groups*. The discussion of this concept, which lies at the core of his thinking about morality, rests on the question: toward what entities does the individual have moral obligations? Durkheim flatly denies that a person can have moral obligations to himself. "Such acts are morally neutral." (p. 56) He next raises the question as to whether we can have moral obligations to other individuals. "Shall we say that, to act morally it is enough to look, not to our personal interest, but to that of some other person? . . . Why should that which for me has no moral value have it in the case of others? . . . Indeed, imagine a society in which everyone was prepared to deny himself in favor of his neighbor; then, for the same reason, none could accept the self-denial of others, and renunciation would become impossible because of its universality." (p. 58) Granting these two steps, the way is clear for the next point. In default of any individual focus for moral obligation, there remains only the possibility of some supra-individual entity. This entity can only be one thing for Durkheim, society: ". . . the domain of the moral begins where the domain of the social begins." (p. 60) Considerations of space prevent the reviewer from dealing with what he feels to be flaws in this line of argument. For one thing Durkheim does not appear to have established securely his fundamental argument, that there is no such thing as a moral obligation to oneself. Also, there is the possibility that he is making something like what Ryle has called a category mistake in assuming that it is possible to have a moral obligation to society.

Durkheim distinguishes a final ele-

ment of morality, *autonomy*, in terms of the Kantian confrontation of the individual will and the law. "On the one hand, moral rules seem, from all the evidence, external to the will. They are not of our fashioning, consequently, in conforming to them, we defer to a law not of our own making. We undergo a constraint that, however moral, is nonetheless real. On the other hand, it is certain that conscience protests such dependency. We do not regard an act as completely moral except when we perform it freely without coercion of any sort." (pp. 111-12) Durkheim's positivism will not, of course, allow him to accept Kant's metaphysical resolution of the problem in terms of the pure reason which is not contingent on the laws of nature. For Durkheim, the source of the law which confronts the individual is again society itself. If this is so, why do we feel constrained? The answer, says Durkheim, is that we are largely ignorant of the workings of society and of the reasons for the demands which it makes of us. This, despite the fact that society is entirely a natural, as opposed to supernatural being. The metaphor of his explanation draws on biology. "We can certainly perceive the great events that unfold in the full light of public awareness; but the internal operations of the machine, the silent functioning of the internal organs, in a word, all that makes up the very substance and continuity of collective life—all this is beyond our purview, all this escapes us." (p. 86) To the extent that we are able to understand the workings we become free, autonomous in the sense that we freely assent. "We liberate," he says, "through understanding; there is no other means of liberation." (p. 116) Thus, for Durkheim, an essential part of moral activity consists of an examination into, and understanding

of, that same activity. To do this is to attempt to make a science of morality.

Thus far Durkheim's theoretical discussion of the nature of morality—it has seemed to merit the fullest consideration, since Durkheim's ideas on how to bring about the development of morality in the child are so closely tied to his theoretical conceptions. The *discipline* of the very young child, says Durkheim, should have two aims; instilling stability or regularity, and encouraging moderation of desires and self-mastery. In effect these amount to taking the first steps toward building a "containing wall" for the "passions." In these endeavors we can rely on a certain fortunate predisposition to do things as they have been done before, and on an element of suggestibility in the child which Durkheim interestingly compares to that of an hypnotic subject. In discipline, as in other aspects of morality, the function of the school is to serve as a mid-point, a place to wean the child from the morality of the family to the morality of society. Accordingly, Durkheim places great importance on classroom duties and obligations. His view of the appropriate sanctions is interesting. He is strongly opposed to corporal punishment, believing that the proper foundation for school discipline is the teacher's respect for his own role and vocation. The function of discipline is simply to serve as an overt sign of the teacher's feelings of disapprobation for inappropriate conduct.

Durkheim's discussion of the instillation of attachment to social groups rests upon his conception of the twin nature of altruism and egotism. Far from seeing the two as unalterably opposed, Durkheim asserts that the nature of the pleasure which accompanies altruistic and egoistic actions is the same. What difference there is, appears in the direction the action takes. Egotism is centrip-

etal, it does not go beyond the acting subject. Altruism, on the other hand, is centrifugal, it overflows from its subject. Both arise naturally in the child. Indeed, neither occurs in an entirely pure state; rather, they intertwine and complement one another. The teacher, then, in promoting the altruism of attachment to social groups, should attempt, not so much to suppress egotism as to direct its force outward. Durkheim discusses in considerable variety and detail the ways in which this may be done in the school.

This book is a textual reproduction of manuscript notes for a course on education which Durkheim first gave at the Sorbonne in 1902-3. The French edition appeared in 1925, eight years after Durkheim's death. Unfortunately the book does not comprise the complete matter of his lectures, owing to the condition of Durkheim's notes on the teaching of autonomy, and to the editor's decision to leave out two chapters on method. The present editor has had, perforce, to go along with this decision, and likewise with considerable repetition too closely bound up in the lecture format to be rooted out. The book is well designed and produced, despite some typographical errors.

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FAMILY ENVIRONMENT AND DELINQUENCY.

Sheldon and Eleanor Glueck.
Boston, Houghton Mifflin, 1962. 328 pp. \$6.50.

As stated by the authors themselves, this is not a "how to do it" book. It is rather a "how to understand it" book, and as such, it has great value for educators, social workers, and other members of the helping professions who are con-

fronted with the phenomena of juvenile delinquency. As the third of a series of reports of an etiologic study, beginning with *Unraveling Delinquency* in 1950, and continuing with *Physique and Delinquency* in 1956, it analyzes data treated in the two previous volumes from a new standpoint, namely, the interrelation of personal traits, physical, psychological, and psychiatric, with social and cultural factors. As the title indicates, the emphasis of the book is on the influence of family environment, rather than wider sociocultural factors, although it is recognized that the family too is simply a focal point in a wider sociocultural matrix.

With characteristic scientific loyalty and caution, the authors refrain from wide generalizations or prescriptions for the solution of the problem of juvenile delinquency. They recognize, in fact, that their findings must have limited applicability to the problems of any particular juvenile delinquent, and they are too sophisticated as researchers and social scientists to advocate any unilinear approach to the study of causation or prevention. In a final chapter, entitled "Some Implications of the Findings" they do offer some suggestions of a practical nature to educators, psychiatrists, and others. However, their suggestions are in the nature of an approach to the problem, rather than an assumed solution.

The first part of the book is devoted to a presentation of the traits of the individual delinquent which were treated in the two earlier volumes of the study and an analysis of the role played by family influences in the formation of such traits. Part II then goes on to a consideration of the bearing of complex materials dealt with in Part I upon the problem of criminogenesis. Part I is more oriented to problems of the sociologist as a student of delin-

quency. Part II is recommended by the authors to educators, social workers, and others who meet with delinquents in the flesh, so to speak.

The primary value of a book of this character, for practitioners, would seem to be orientative. What it contributes from a practical standpoint is a way of thinking about juvenile delinquency, a way which takes into consideration the many-sidedness of the problem. Delinquency is not regarded by the Gluecks as a physical problem, a psychological one, or a social one, but rather as resulting from a combination of genetic, attitudinal, relationship, and general social factors. Having carefully studied physical traits and their relationship to delinquency, the authors turn in this book to the opposite side of the coin, namely, the socio-cultural factors which together with the physical may result in delinquency. Their study points up the fact that various factors in home life can serve as catalysts when joined with physical factors predisposing the individual to delinquency. Neither the physical nor the environmental may be regarded as *the cause* of delinquency. Both together, however, may result in delinquent behavior. The presence of a father in the home who was delinquent himself does not necessarily lead to delinquency—the Gluecks find, in fact, that 32 percent of 500 *non-delinquents* whom they studied as a control group, were sons of criminalistic fathers. Likewise poverty, in itself, does not emerge as a causative factor except in combination with other genetic, attitudinal, and social causes.

In their earlier publications, the authors pointed out that among delinquents there was a significant excess of boys of the physical type known as *mesomorphic* (a sturdy physical type with predominance of muscle, bone, and connective tissue) and a significant

deficiency of boys known as *ectomorphs* (a more delicately organized type). But their study discloses that many mesomorphs are non-delinquents and, of course, that some ectomorphs turn out to be delinquent. Given a home environment, however, in which parental and other influences of an unwholesome character conspire, so to speak, with physical traits, the likelihood of delinquency will be great. Causation, in other words, must be thought of as multiple in character.

Just as causation must be seen as a many-faceted matter, so must the treatment or prevention of delinquency. Cautioning the reader against any simple solution, the authors point out that a whole network of forces is involved and that the management of these forces must involve general economic, social, and political policy. But they also recognize that "the prevention of delinquency careers . . . is also dependent upon something more specific than the manipulation of the general environment." Quoting from their own *Delinquents in the Making* (1952) they state: "Although basic modifications of the general system of habits and values that permeate our culture are bound to be slow, we can take advantage of the oft-neglected fact that parents are to a great extent not only the bearers, but also the *selective filters*, of the general culture. The same is true of schoolteachers, with whom children spend much of their time during the most impressionable and formative stage of life. Thus, there is both realism and promise in taking more direct and specific steps to improve the *under-the-roof culture* in home and school." (*Family Environment and Delinquency*, p. 156)

As an illustration of a possible practical implication of their findings, they point out that a father substitute, working with a boy whose tendency is to

uninhibited motor responses, ought to know that this trait is of constitutional orientation, and therefore "guide his charge into socially acceptable uses of his tendency to uninhibited motor responses to stimuli." (p. 160) They do not indicate how the "guiding" is to take place, nor speak of the problems encountered in such guidance. Perhaps it is just as well that they are not more specific in this particular instance. For to give any more specific prescription would violate the orientation and purpose of the book. The best that can be done, perhaps, is to be aware of the large variety of causative factors involved in any particular case, and to recognize that no one individual can make up for an unfortunate history, or the unfortunate combination of personal traits and sociocultural factors which have shaped the life of a particular child. Perhaps we must be content to be "selective filters of culture," bringing knowledge such as this book provides and attitudes of our own which tend, in some measure at least, to offset baneful influences of home and general social environment.

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INTRODUCTION TO PSYCHOLOGICAL RESEARCH.

William A. Scott and
Michael Wertheimer.
John Wiley and Sons, New York, 1962.
445 pp. \$7.95.

The ever increasing interest in the experimental analysis of various aspects of behavior has led to greater appreciation of the methodological problems associated with psychological research and has increased the need for authoritative but straight-forward analyses of the research process itself. Scott and Wertheimer's

Introduction to Psychological Research was written with these considerations in mind. The focus of the book is on the totality of a given research project, from its inception to the reporting of the results to the scientific and lay community; its primary aim is the description and analysis of methodological aspects of each phase of psychological research activity.

As a method-oriented text, this highly readable volume represents a significant addition to a rapidly growing collection of books whose major emphasis is on sensitizing the student to the range and limitations of procedural alternatives available to him in various phases of research activity. In the present work, the sensitizing is done with skill and acumen. Cautions and preferences are clearly articulated. The authors succeed in making the research effort a tempting, activating, and challenging enterprise.

The outstanding features of this book relate to its scope and method of presentation. In scope, the book goes considerably beyond the topics frequently treated in texts concerned with research methodology. The introductory chapter offers an overview of the nature of research. Subsequent chapters are concerned with the identification and formulation of research problems and hypotheses; the limitations to generalizing from the data which are imposed by characteristics of the sample used, methods of measurement, and experimental conditions; the function and application of controls; the nature and limitations of various scales of measurement; the construction, evaluation, and use of psychological tests; criteria for selecting equipment; the selection of subjects and their assignment to conditions; subject-experimenter interactions; techniques of data collection and data analysis; and interpreting and re-

porting experimental findings. As an inspection of these topics suggests, the authors' organizational approach is sequential. The research project is made the focal point and the issues and alternatives associated with each stage of its development are examined. This approach is, I think, a particularly useful one for the research-naïve reader and accounts for the greater breadth of treatment.

Within chapters the material is presented in such a way as to maximize continuity of text. Most of the chapters have, in addition to discursive material, supplements in which the authors present the more technical aspects of the topics. Information in the supplements includes such items as sources of financial support for research projects, the names of various journals which publish papers concerned with psychological research, the derivation and application of several statistical formulae, and the descriptions of some pieces of standard psychological equipment. With the supplement available to handle the technical details, the reader is able to obtain a global view of the topic with few distractions, and then follow up this view with a more analytical account of some of the issues discussed. Also, with the aid of the supplements, the authors have been able to make available to the student some of the more recent developments relevant to various aspects of research activity. Among these are the Convention Duplicating Service for speeding up dissemination of research findings, data processing techniques, and several statistical techniques.

Despite its breadth and close attention to recent methodological developments, the book is uneven in the depth and detail of treatment of certain topics. The sections on statistical procedures generally assume a fairly sophisticated background in statistical theory. Al-

though several statistical techniques are presented and reviewed, certain ones seem to receive preferential treatment. In this context, it is interesting to note that surprisingly few constructive references are made to analysis of variance as a statistical technique, and the computational procedures associated with the direct application of this technique are omitted.

The chapters on the use of psychological tests and on sampling theory and procedures are developed in great detail. In contrast, the chapter on the use of experimental equipment is highly selective in content. Similarly, little attention is given to the interrelationship among hypotheses, assumptions, and theories, and to the relevance of these interrelationships to experimentation and the interpretation of data. This reviewer feels that, while much research is specific and single-problem oriented, a considerable amount of research is and should be theory-related. Issues of theory construction, validation, and modification, and the relevance of theory to hypothesis testing and validation are, then, critical aspects of research methodology, and merit treatment in that context.

The unevenness referred to above does not seriously limit the usefulness of this text as a reference volume. There is considerable information of value to the undergraduate, the graduate student, and the professional research worker. The question of the level at which it can best be used is more difficult to answer. As the instructor in a year course in Experimental Psychology, this reviewer is not very sympathetic to method-oriented approaches. He feels that the best "introduction" to psychological research is active participation in research activity, with a view toward developing increasing independence in recognizing significant problems, and

formulating, testing, and evaluating relevant hypotheses. For him, this distinguished book would be most effectively used as a supplementary reference.

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EDUCATION FOR DEMOCRACY IN WEST GERMANY.

Edited by Walter Stahl.
Frederick A. Praeger Co., New York,
1961. 356 pp. \$4.50.

Education for democracy in the schools of West Germany has been a matter of concern to many people in many countries on both sides of the Iron Curtain. The Russians have made it clear that they consider West Germany's commitment to democracy just a thin veneer covering a strong neo-Nazi philosophy. Even in the West, especially in England and in the United States, serious doubts have been raised regarding the effectiveness of the educational system in West Germany in making the younger generation realize the evils of Nazism and in steering German youth toward intelligent and deep-rooted acceptance of the principles of democracy. Since no nation likes to hear criticism from outsiders, it is not surprising that West German political and educational leaders have expressed resentment against critics from abroad who have questioned the sincerity of attachment to democracy.

It is therefore important to have a study like the *Education for Democracy in West Germany* done by several German authors and by an editor whose devotion to democratic ideals is a matter of long record. Walter Stahl is the executive director of Atlantic-Bruecke (Atlantic Bridge), a non-profit German organization which was founded to further close relations between West Ger-

many and the United States. It is refreshing to note that the book is not an undocumented apologia. On the contrary, the volume contains over fifty essays on various aspects of German life and features a number of scientific reports and research studies dealing with the attitudes and value judgments of high school and college students in West Germany. The studies are reported with great objectivity and no effort is made to dress up or minimize the significance of the findings.

In his introductory essay on "The Present Status of Democracy in West Germany," Stahl notes that while democracy made good progress in West Germany since the war, "one of the weakest points in the structure of German democracy is that of the political education and training of the youth of the country—and of the adults as well." The difficulty lies, in Stahl's opinion, in the fact that genuine acceptance of democratic principles and processes by the Germans necessitates a complete change or an up-rooting of deeply imbedded authoritarian modes of thought and behavior. In spite of some progress made in that direction, the German editor sees two main sources of danger to the young and rather fragile democracy of the West German Republic. One is the almost cynical indifference to politics and political life of the great mass of the population and the other is the "nationalistic or Nazi (including anti-Semitic) feelings and ideas [which] still linger on in many German hearts and minds."

Stahl notes with satisfaction a public opinion poll conducted in May, 1960 which disclosed that 74% of West Germans considered that a democracy was the best type of government for them. He doubts, however, whether the results of the poll show that Germans have really become democratic. He believes

that while over three-fourths of the population accept the democratic federal form of government as preferable to any other, their devotion to democracy is still often vague and superficial. West Germans do, however, know that they do not wish to have a totalitarian government either of the left or of the right. In the same public opinion poll, 85% voted *no* on the question, "If the opportunity arose now, as in 1933, to vote in an election for or against a man like Hitler, how would you vote?"

The great remaining task of re-educating even the young generation is highlighted in four research studies dealing with the attitude to the Nazi era by high school students between the ages of 15 and 19. The studies were conducted in connection with classes in Political Education (*Politische Erziehung*), a subject of instruction which progressive German educators believe will be instrumental in imbuing the young generation with a dedication to the democratic process and way of life.

In a survey taken among 250 high school students of ages 16 and 17, only 25% of the 16 year-old group and 19% of the 17 year-old group answered affirmatively to the question of whether Germans are to be blamed for the extermination of Jews. 17% of the 16 year-old students felt that Israel and the remaining Jews were entitled to receive reparation for the Nazi crimes, but an equal percentage felt that any compensation to the survivors of the Nazi camps was unjustified. The rest of the students had no opinion on the subject. It is shocking to note that the majority of the voting students in the 17 year-old group rejected the policy of reparations. The vote was 23.6% against, and 19.8% for reparations.

As to the assessment of Hitler's policies, 23.5% of the sixth graders (16 year-old students) approved of Hitler's

policies and 11.3% considered them bad. 36.7% of the seventh graders (17 year-old group) condemned Hitler's policies as bad for Germany and for the world. The educator reporting on the survey saw the more desirable result in the seventh grade poll as positive proof of the effectiveness of the instruction in political education.

The section devoted to social studies textbooks now in use in German high schools is, unfortunately, neither informative nor substantial. The authors of the essays and of the reports included in this section are aware of studies that have been made in Germany and abroad which were highly critical of the content of the textbooks and which indicated that German textbook writers failed to deal with Nazism and the record of Hitler's regime objectively and forthrightly. The authors deal with the matter gingerly suggesting that while the treatment of the Nazi era and the Nazi persecutions is often "unsatisfactory," the textbooks are not as bad as the critics think they are. To support this view, a British schoolmaster is quoted as having told a leading German educator: "I am glad to be able to say that your school books are better than their reputation." It is to be regretted that the authors of a book which pulls no punches about the inadequacies of German education should have chosen to accept this typically British under-statement of a visiting Englishman at face value. Many of the German history textbooks need a thorough revision to eliminate biased and distorted material; the sooner this task is accomplished, the better will be the chances of educating German youth toward a commitment to democracy.

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THE MONTESSORI METHOD: A REVOLUTION IN EDUCATION.

E. M. Standing.

*Academy Library Guild, Fresno,
California, 1962. 209 pp. \$3.95.*

LEARNING HOW TO LEARN—AN AMERICAN APPROACH TO MONTESSORI.
Nancy McCormick Rambusch.
*Helicon Press, Baltimore, Maryland,
1962. 180 pp. \$4.50.*

The resurgence of the Montessori Method is welcome to parents who so strongly believe it will lead to more "content" in education and to earlier reading and writing that a recent opening of a Montessori Children's Class at Boston College brought more than 200 applicants for 35 places. Articles in popular and professional magazines, lectures and discussion groups, the opening of numerous schools and a training college, and the founding of an American Montessori Society testify to the momentum of the movement. Such an interest in early childhood education is good as it focuses attention on the years between three and six as important years in growing and learning. It is an understandable development among parents who, because of the population explosion and the complexities of knowledge as they see it in "tomorrow's world," become anxious about what they can do to prepare their children for college, and secure them a livelihood in a competitive, high-gearred society.

Mrs. Nancy M. Rambusch is headmistress of the Whitby School in Greenwich, Connecticut, which she founded in 1958 on principles formulated by the late Italian educator, Dr. Maria Montessori, who died in 1952 at the age of 81. Mme. Montessori was unquestionably a pioneer in early childhood education. Aside from her specific materials

and methods she promoted a new and progressive idea. Froebel, a highly influential educator in the early nineteenth century, emphasized the teacher's taking the leadership in a classroom. A Froebel kindergarten commonly arranged children in a circle, with the teacher in the center giving directions, and demonstrating activities, and the children imitating her. In Dr. Montessori's system, however, the children work independently. Although her insights are obscured by contradictions, her basic theories of spontaneous development, freedom for the child to grow without unnecessary restraint, and provision for a stimulating environment, were new and valuable. Yet many new insights and methods have since come to early childhood education to modify, improve, and even invalidate Mme. Montessori's ideas. Mrs. Rambusch, unaware of these developments, begins her book with an attack on current methods of educating the young child which she feels are wasteful and destructive. She deplores what she believes to be a slavish and unmotivated use of block-play, and she feels schools for young children aim exclusively to accomplish a child's social adjustment, in what she describes as "over-groupiness." She believes that modern educators are distressed at the idea of a child's working and concentrating, and that they tend to reward restlessness, and contribute to lacks of discipline and knowledge.

The misrepresentation involved in such statements is alarming and puzzling, unless one begins to realize that Mrs. Rambusch, despite the veneer of knowledge in her assertions and the borrowed plumage of her elaborate quotations, is as uninformed about the theory and practice in our best nursery schools and kindergartens as the public she is wooing. Although she quotes fre-

quently from Gardner Murphy, Jerome Bruner, Piaget, and Erikson, anyone familiar with the point of view of these men realizes how inadequately she has come to grips with their basic works. Both Bruner and Gardner Murphy, for example, are particularly interested in promoting creativity in the educational process. They devote much of their thinking to exploring the conditions that nurture intuition and favor risk-taking, and then deplore the inevitable reward of the right, or predicted, answer. Both men want the preservation of imagination, and see the importance of the child's fantasy reconstructions of experience. Mrs. Rambusch, on the contrary, states that in Montessori classes there is an environmental emphasis on reality; she is opposed to schools where children "play house, dress up, play store, etc."

The interpretation of Erikson's psycho-social stages, aligning them with Montessori theory, without any reference to their Freudian background or implications, is noteworthy as one realizes how out of touch Mrs. Rambusch is with depth psychology. This is clear when one considers how Mrs. Rambusch recommends handling a child who is disorderly or destructive. "The most effective mechanism for handling recalcitrant children in a Montessori classroom is isolation; that is, not isolation from the group as such, but isolation from independence. The child who is incapable of working independently works near the teacher and must move with her when she moves in order that she keep an eye on him. When he feels he is again capable of working independently, he is free to return and set about his business independently. This need for independence comes from him." There is here no attempt to understand the *reasons* underlying a

child's aggressive behavior, and come to grips with its underlying causes.

By contrast, E. M. Standing, for thirty years Mme. Montessori's assistant, does not try to seek the support of other educators or psychologists. His book has a more specific description of materials, and a more orthodox interpretation of the Method than does that of Mrs. Rambusch. His organization is poor, and his verbose style and sentimental attitude toward children and their destiny makes his writing seem almost a period piece. He refers to children as "solemn little pilgrims," "tiny people," "little travelers," "young fellows"; he sees them as "politely cheerful," "intensely serious," and most often "solemn." He is delighted to observe them at lunch time in "the cutest queue you ever saw, all waiting *patiently* for their turn to eat." He has no acceptance of the noise, the messiness, the error and awkwardness that is so much a part of childhood. He notes with satisfaction that tables in the Montessori school are light and easily jolted, so that the awkward child can keep a more careful watch over his movements. They are painted in a light color so that the child who smudges the surface with dirty fingers will realize his untidiness and immediately clean away the dirt. He extolls the child who notices a mistake in a fellow pupil's spelling, and spontaneously pauses to correct it (apparently this is not regarded as interfering with another child's work), and he looks with favor on the child who immediately seizes a small broom to sweep away the grains another child spilled in his repetitive pouring of rice from one glass to another. One has the impression of a kindly, benign grandfather, who loves his visit to his controlled Lilliput, and who is suspicious of "progressive schools where children are allowed to do what they like and, in so doing learn little besides

aggressiveness and bad manners." He likes to think of their "immortal souls endowed with the sovereign powers of intelligence and will."

The two books together give a good picture of the Method in theory and practice. A fundamental principle underlying the Montessori system is the notion that children, endowed with a life force capable of spontaneous good development, pass through certain stages or sensitive periods related to special learning needs and readiness. During these periods the child shows certain "aptitudes and possibilities in the psychical order" which afterwards disappear. There are, for example, sensitive periods for language, touch, order, and religion. To meet the needs of these sensitive periods, Montessori relied on a highly organized environment which utilized the child's sensory-motor impulses. The environment provides a narrow and unscientific choice of educational materials with varying purposes and difficulties, so that any individual child could find something suited to his learning needs. Such materials include sandpaper shapes, graded cubes, number cards and rods, insets of geometric forms, matching colors, bells, divided circles representing fractional divisions, a large circle representing the liturgical year. Also present are materials for housekeeping chores, such as shoes to be shined, brasses to be polished, windows and tables to be scrubbed. All these materials must be used in a prescribed manner in order to learn correctly the lesson for which they were designed. No child can interfere with another one at "work." The directress sets social limits, and demonstrates the use of the materials which a child himself selects, and works at a separate area, as he learns through auto-education and self correction.

It is clear that many basic tenets of

the once revolutionary Montessori method have been incorporated in modern schools and then modified in a way that lessens their rigidity. For example, most educators agree that children learn for themselves, and utilize sensory motor abilities in dealing with objects and materials before they come to abstractions and general principles. It may be, however, that all children do not need an elaborate stimulation. There are, in many non-Montessori schools, materials on which children can impose their own structure and learn a great deal without the constraints of the Montessori prescriptions.

The notion of sensitive periods is fundamental to certain learnings. However, critical periods for the development of any form of behavior, or the incorporation of any learning, will be to a certain extent unique for each person, and there is likely to be some overlapping of the periods no matter what conceptual scheme is considered. Because young children are so vulnerable to adult emotions and values, most educators would agree that early childhood is a sensitive period for religion, or the transmission of values, negative as well as positive ones. The beginnings of language and writing in the young are too obvious for comment.

It is perhaps Montessori's belief in a sensitive period for *order* that most modern educators would find difficulty in accepting. Implicit in this idea is that order on the outside creates an internal order. This has not been demonstrated. Indeed, the ordering that the Montessori method espouses has the flavor of neurotic compulsion, and one wonders if it is really for the good of the child or the comfort of the adult. Every person who works with young children has witnessed a love of repetition and ritual, particularly among two year olds. Their learnings are so new and delight-

ful—even apart from the Montessori classroom—that they love to repeat them, and obviously gain a sense of mastery from doing the same thing over and again. Even a joke, or a simple game such as peek-a-boo does not quickly grow stale, and every parent and teacher acknowledges the adult's weary sigh that accompanies still another reading of the same favorite tale, or the one hundredth repetition of a favorite song. Such repetitions or rituals and reliance on order are particularly characteristic of bed-time, when the child is motivated by delaying actions, and also probably by the sense of security he builds up when he is faced with the need to abandon himself to the separation and potential terror of darkness and sleep. But it is more commonly the physically sick child, the autistic or anxious one, who needs so much to control the placement of every object in its usual place in a room that he goes into fits of crying or convulsions when the order is tampered with. One wonders how such children accept the inevitable disorder in the non-Montessori world, in the neighbor's house, or the public thoroughfare. One also wonders how so many orderly people have emerged without the benefit of Montessori training.

The authors' consideration of the teacher and mother in these books emphasizes mostly external matters, with very little attention to the complexities of the relationships of child, teacher, and parent, and no consideration of the personalities of any of these people. Not much is told about training the teacher except that it can be accomplished in a year in a special training school, and a year's work as an apprentice teacher. Also, there seems to be confusion regarding the role of the teacher, with a theoretical demand for little intervention, and a practical necessity for con-

stant intervention. The mother is treated as a kind of extension of the teacher. Remarks about the parent involve what might be called "household engineering"—how to establish a "prepared environment" in the home with appropriate child-size equipment, uncluttered space, maintained with cooperative clean-up help from the child. Mothers are instructed how to teach even the $2\frac{1}{2}$ year old, equipped with pitcher, basin, pail, wash cloth, soap dish, nail brush and towel, to wash his hands in 17 steps. Even opening a door has three distinct steps. First one places one's hand on the knob. Second, one rotates the knob to free the door from the jamb. Third, one draws the door toward one. Such elaborate directions for simple functions makes one think of the familiar story of the caterpillar who could not walk when he tried to say how he did it. The father is notably absent from the child-rearing scene, as is any consideration of sex difference in learning. And the matters to which present-day educators and parents direct so much attention—eating, sleeping, and toilet training, sibling relationships, and play, are not mentioned at all.

A review of books expounding the Montessori method must accept the challenge to reply to their authors' adverse criticism about the lack of "content" or academic learning in "conventional" schools for young children. Consequently, this review concludes with a brief reply to this point.

Many schools for young children have long been aware of developmental progressions in learning. For example, children use numbers at an early age, and have the first stimulus to counting in their ten fingers. By the time they are six they can add and subtract within five, and sometimes ten, without any

formal teaching. Young children see geometric forms in their buttons, bars of soap, pieces of bread, crackers. They do not need exercises with wooden circles, squares, and triangles to teach them what these forms are. They spontaneously practice and enjoy putting events in a series in the routines or rituals they set up for themselves, in the songs or rhymes they prefer, in the ways they arrange objects that come to their hands—blocks, raisins, beans, cereal. They do not need special materials to teach such ordering. They practice writing on their own, given a crayon and paper, through scribbling, through making the vertical and horizontal strokes, and concentric circles. They naturally and properly experiment with upside-down forms, and left to right and right to left progressions before they settle to our culturally established ways of presenting written symbols.

Experiences with all these interests develop and are fostered by the teacher's attention and praise, by relations with other children, by opportunities to attach words or other symbols to experiences, and to question their meanings and relationships. Many teachers of young children recognize that the child needs to hear many words, to associate them with objects, and to see words in print. He must have a wide acquaintance with many books that he enjoys. He needs such objects as blocks, sticks, beads, number frames, cuisiniere rods to help give form to his number sense as well as an acquaintance with written numbers. Yet no child should be forced to use some single approach to a learning to the exclusion of others, or to use any approach before he is ready. Basic to the philosophy of modern early childhood education is the undesirability of having only one system, or having any learning started at an arbitrary

time. The teacher must be the "system"; it is important for the development of all skills to have a wide variety of materials, and a teacher who knows what to do with them and when to do it. If an educator gets something locked up in a system, there is a real danger of taking only one path to the exclusion of others, and cutting off a very important goal of education. Children must have ideas presented in many different ways—not just the Montessori way—and at appropriate times, and thereby learn that tasks are in some ways similar, before they can come to abstract principles, or understand basic structures.

There are many examples of good teaching readily available in our present-day nursery schools and kindergartens to illustrate that a respect for individual differences, for mobility of thought, discovery, curiosity, creativity have been necessary components of learning among devoted, imaginative, and intelligent teachers of young children. But they all too often have been so busy in their task of teaching that they have not taken the time to communicate that they have been presenting many valuable "academics" to children in ways that provided meaning and stimulation for all in the group. This situation seems all the more unfortunate when one realizes the serious shortcomings in the Montessori system, and to what extent the public, lured by the structure, the gadgets, the promises of the Method, will follow unproductive educational procedures and fail to support the wealth of fine new insights about children and their learning that the past forty years have supplied.

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WORK-STUDY PROGRAMS FOR ALIENATED YOUTH, A CASEBOOK.

George W. Burchill.

Science Research Associates, Chicago,
1962. xiv+265 pp. \$4.95.

For what it seeks to do directly as a descriptive casebook, this volume is a unique and needed contribution. Educators who are concerned with planning classroom and job experience which will prevent a significant portion of our youth from becoming alienated and delinquent will find the nine case studies of programs in this book helpful indeed.

In addition to its empirical value as a description of carefully-selected cases, *Work-Study Programs for Alienated Youth* makes a genuine contribution in terms of policy leadership and guidance. The book, written ably by George W. Burchill, is the result of a major effort by the Phi Delta Kappa Commission on the Role of the School in the Prevention of Juvenile Delinquency to throw light on a needed field of school development. As such, it is much more than a report of cases; it conveys policy suggestions and practical guidelines which should have broad usefulness in American communities.

A little of the history of this book may help the reader assess its possible value to him. In April 1961, Robert J. Havighurst and Lindley J. Stiles as members of the Commission published "A Statement of National Policy for Alienated Youth" in the *Phi Delta Kappan*. This statement is republished in the present volume. The Havighurst-Stiles document stated the problem of alienated youth in these terms:

An increasing minority of youth (15 per cent of the total population but as high as 40 per cent in given communities, depending upon their com-

position) fail to move satisfactorily toward competent adulthood and become so frustrated by negative influences in their homes and school environments that they rebel—thus they may be properly described as alienated. Such individuals have high potentiality for delinquency.

The "Statement of National Policy" called attention to needed programs for alienated youth. The strategy suggested for communities in attacking the problem would have the following phases:

1. Development of a work-study program for alienated 13- and 14-year-old boys.

2. Supplementation of the work-study program by social agencies and community organizations which create and maintain a wholesome social situation for alienated youth.

3. Preventive programs for work with young children in the primary grades and their families to help them make more satisfactory progress in school and thus to reduce the future numbers of alienated youth for whom a work-study program is needed.

Havighurst and Stiles did not assume that work-experience programs commencing at age 13-14 and continuing to age 18 combined with earlier identification and preventive measures would be a panacea for all youth problems. But they saw such programs as one important element in the arrangements our society should make to reduce youth alienation; their estimate is that such programs might reduce juvenile delinquency by as much as 50 per cent.

After the "Statement of National Policy" was published, a request was made to Phi Delta Kappa members for information about school-related work-programs in American educational systems. Over 1500 programs were report-

ed to the Commission in response to this appeal. The Commission then undertook the heroic job of screening these to a smaller number which could usefully be described in published form. In preliminary screening a total of 25 cases were selected. This number was further screened through visits made by Phi Delta Kappans to the schools using the selected work-study plans. As a last step, Professor Burchill visited schools with programs selected in terms of their applicability to alienated youth, their relation to school and community, their organization, their proven success, and their representativeness. In this way, through a year of collaborative effort, the nine cases reported in this volume were chosen and investigated.

The Commission had accepted DeWitt Hunt's criteria for work-study programs (see DeWitt Hunt, *Work-Experience Education Programs in American Schools*, Bulletin 1957, No. 5, United States Department of Health, Education, and Welfare, Washington, D. C.). In addition, the Phi Delta Kappa Commission urged that programs be organized into stages commensurate with the maturation levels of children and youth. Thus, a "first stage would be to work in groups, under school supervision, completely or partially outside of the labor market." The second stage suggested by the Commission would "be part-time work on an individual basis with employers in private or public business or industry," still under close school supervision. The third stage "would be full-time employment in a stable job, aided by some guidance and supervision on the part of the school or employment service personnel." The accompanying school study program would need to be adapted to the ability and outlook of the youth involved, in terms of content, methods of instruction, and learning materials.

The nine work-study programs reported in this volume are examples, in the Commission's careful judgment, of successful incorporation of many of the elements needed for an adequate approach to alienated youth. Cases include the following:

- Flint, Michigan
The Junior High School Rehabilitation Program
The Voluntary Work-Education Project for High School Drop-Outs
- Mount Diablo, Concord, California
Inside-Outside Work Experience
- Moline, Illinois
Arrowhead Ranch
- Santa Barbara, California
Work-Experience Education Program
- Champaign, Illinois
Prevocational Services for Handicapped Youth
- Rochester, New York
School-Work Program for Slow Learners
- Cranston, Rhode Island
Cooperative School-Hospital Education Program
- New York City
Work-Experience Program for Potential Drop-Outs
- Kansas City, Missouri
Work-Study Program to Prevent Juvenile Delinquency

Readers will find in these case studies an exciting quality of innovation and practical responsiveness to a basic social concern of the schools. The examples may help, by illustration, to affect policy decisions in other settings where action is needed.

Professor Burchill has provided in his closing chapter, "The Challenge," an excellent digest of guiding viewpoints for those who wish to build new programs. His summary deals intelligently

with school-community planning, academic and work-experience aspects of program, selection of students, staff recruitment and development, and evaluation.

The appendix material in this book, it should be added, is unusually useful. Appendix C presents "Examples of Instructional Units Used In Work-Study Programs" which are concrete illustrations of inventive educational planning for alienated youth. The bibliography is slight and not as useful as one would like; this appears to be a function of a narrow search rather than a reflection of any paucity of materials on the re-integration of youth in society.

With this small flaw excepted, *Work-Study Programs for Alienated Youth* is a remarkably fine piece of work for which we are indebted not only to Professor Burchill but to Phi Delta Kappa. It is as good as it is clear and unpretentious.

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THE GENTLE PURITAN: A LIFE OF EZRA STILES, 1727-1795.
Edmund S. Morgan.
Yale University Press, New Haven, 1962.
490 pp. \$10.00.

This biography of The Rev. Ezra Stiles, scholar, Newport pastor, and from 1777 to 1795, president of Yale shows him to have been a man with outstanding qualities for a college president, intellectual curiosity, human warmth, and a talent for administration and for raising money. Yet, he cannot, as Professor Morgan points out, be considered a major figure. Thus it is a notable achievement that the book remains both significant and interesting throughout

its near five hundred pages. One recalls Thoreau's remark on the historian and his theme—that a Shakespeare could make the history of his own parish more interesting than the next man's history of the whole world. Morgan notes that Stiles's mind was receptive rather than creative so that a proper biography of the man should include a good deal of the history of his times. Woven into such chapters as "The Meaning of New England," "The Great Awakening," and "Puritanism Enlightened" is an account of intellectual history of New England in the second half of the eighteenth century. The tight coherence of the book is the result of the author's thorough knowledge and understanding of Stiles and of his real sympathy for the essentially Erastian, mediating temper that Stiles embodied.

The biographical approach to intellectual history is extremely effective in *The Gentle Puritan*; the book has none of the appearance of abstract ideas drifting through the ether in search of a human being that is too often the bane of intellectual history. The author gives us ideas firmly rooted in a social milieu of particular human beings and the very flavor of their expression; for example: Stiles's Uncle Abel. He was a New Englander who liked to emphasize the practical side of things in a way so direct as to be humorous. Unimpressed by his nephew's intoxication with scholarship and Yale, Abel wrote from his Woodstock pastorate, "You mention the pleasures of literary acquisition &c. by which your academic life is rendered highly delightsome. I trust these pleasures are somewhat higher than what are called amusements.... We are creatures highly indebted, creatures dependent and accountable, and to act as such is a thing great and good." (p. 101)

Further evidence of the vitalizing effect of the biographical approach is

Morgan's superb evocation of the peculiar human density of eighteenth-century New England. That is, a young man of ambition and ability (such as Stiles) setting forth from Yale in the 1750's could hardly make a move without stepping on toes made sensitive by old family feuds—feuds that were often fortified with theology. Few people used neater footwork in making their way through this touchy human mass than Ezra Stiles. Indeed the way he extricated himself from the Stockbridge Mission candidacy was sheer genius. (The tense situation at Stockbridge could never be adequately explained in purely theological terms; it was Edwards family and New Light theology versus Williams family and Old Light theology.) It may have been his experience here that began to steer him toward his Erastian position above the battle; first because becoming prematurely involved might ruin his future prospects, second because theological controversy seen close up could look very small. Morgan rightly concludes that Stockbridge would have been a dead end for Stiles and yet in his extremely generous estimate of Abigail Williams implies that she might have made Stiles a good wife. Some might question this; despite her obvious intellectual power there are parts of the record (her letter to Stiles of Feb. 15, 1751) that would indicate that intrigue and the game of inter-family power politics was the very breath of life to her. Stiles never developed a taste for this; further there is some evidence that she inclined to turn all the men in her vicinity into puppets. Stiles might have found the strings galling.

But to turn from this minor speculation to Morgan's general perspective on New England's religious and intellectual life in this period, I should say that he agrees with Stiles on the main points. In this perspective *The Great*

Awakening (of which Stiles's father was the first effective opponent in Connecticut) is seen as a noisy delusion brought on in large part by clever oratory. It was a time when "multitudes were seriously soberly and solemnly out of their wits" to quote Stiles. The New Divinity clerics are dismissed as alienated intellectuals often unpopular with their congregations. Morgan's rhetoric in describing them is not only scathing; it is brilliant, and it stings one who, like myself, thinks there may be something to be said for the New Divinity. This book is much more than just a biography; in its imaginative use of materials and coherent perspective it has the effect of opening up a new field in the larger area of eighteenth-century cultural history. It has the wit and compelling narrative that we have come to expect of our leading colonial historian.

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ABILITY AND EDUCATIONAL OPPORTUNITY.

A. H. Halsey, editor and rapporteur general.

Organisation for Economic Co-operation and Development, Paris, 1961. 222 pp. 15 s.

Economic considerations have long been a baleful influence on educational policies and structures; short-sighted governments and societies have failed to provide the schools with adequate financial support because they seemed only to consume, not to enlarge, the national income. Ironically, economic considerations are now bringing about a reversal of this attitude, as it is increasingly realized that expenditures on education constitute investment, since one of the "products" of an educational system—skilled manpower—is a crucial

element in economic growth and prosperity. Hence, there is a rising concern with education on the part of governmental bodies. In June, 1961, the Organisation for Economic Co-operation and Development, consisting of eighteen nations of western Europe and Scandinavia together with Canada and the United States, called a conference to consider some of the problems involved in developing education as an economic resource, and the book under review is the outcome. Only the six scholarly papers formally presented to the conference are reproduced here, but they are accompanied both by an excellent preface by the presiding chairman, Lionel Elvin (England), and by a rich, subtle, and stimulating review of the proceedings by A. H. Halsey (also of England), in which some reference is made to the discussions which transpired.

Let it be said at once that the participants in the conference were by no means heedless of the non-economic values of education. Mr. Halsey tells us that "delegate after delegate" affirmed "the claim of individuals to be afforded opportunity for the attainment of their full human stature," and that all accepted the proposition that "in the second half of the twentieth century, education is . . . the principal means of self-development." (pp. 16-17) Nevertheless, he goes on to point out, this inherent right to education is in practice contingent upon "the availability of educational resources," and therefore upon the per capita national income; and also upon the weight given to "the capacity of the individual to profit" from his education, which generally means, in effect, the probability that he will make good occupational use of the knowledge he acquires. Thus, once again, we are brought back to the economic causes and consequences of educational policy,

and, as Mr. Halsey warns, they are not necessarily identical with its ethical and humanistic foundations. (Another at least partly non-economic factor, the rivalry of the Cold War, is only briefly alluded to. This is, in one sense, a welcome relief, though surprising in view of the nature of the O.E.E.C.; on the other hand, the Communist countries have also faced the problems that were dealt with, and a comparison with their solutions would have been enlightening as well as politically significant.)

The focus of attention at the conference was on measuring a nation's "pool of ability," determining the barriers between it and the educational system, and thereby showing the kinds of social and educational policies needed if a nation is to make full use of its resources of talent. In one way or another, each of the papers—and they are all of high quality—acknowledges that the crux of these matters lies in the differences associated with social status. Pieter de Wolff (Netherlands) and Kjell Härnqvist (Sweden), for example, in an ingenious analysis of data from their countries and from England and the United States, demonstrate that, solely because of social-class differences in "transition probabilities" (the chances that a student will move from one level of education into the next higher one), the unused reserve of young people capable of academic success in a university or its equivalent is two or three times as great as the number actually enrolled in such institutions. Free admission and other appropriate financial measures could go a long way toward enabling a society to utilize these reserves.

Most of the other speakers, though (and de Wolff and Härnqvist clearly did not disagree), emphasized that the provision of formal equality of opportunity is only part of the solution. The ultimate objective is socially effective

equality, and the main impediment to achieving it is not the lower-class youth's lack of money for education, but his lack of desire. To eradicate this difference in values is a much more difficult problem, but some possibilities are put forward. Dael Wolfe (U.S.) and Torsten Husén (Sweden) suggest, among other things, the desirability of later rather than earlier "streaming" of students into academic and non-academic curricula, because, in addition to its greater fallibility, earlier separation is more apt to be along social-class lines and thus to confirm the differences in educational aspirations. This amounts to an argument in favor of extension of the comprehensive school, and several of the delegates reported that their nations are indeed moving in that direction. It also implies, and this was made explicit by a number of speakers, that the characteristics of the school system itself—its teachers, curriculum, and methods of instruction—should be regarded as causes and not merely as effects of the amount of talent a society has at its disposal.

More broadly, it was repeatedly brought out that the entire social fabric is a factor in determining the size of the "pool of ability," by virtue of its influence upon the distribution of motivation and upon the range of behaviors it chooses to define as "ability." The "pool of ability" turns out to be a sociological, not a biological, concept; it might almost be said that a society has as much talent as it wants. Thus, Jean Floud (England) calls for action to increase the number of "*familles éducatrices*." Mr. Halsey goes beyond that and sets up the ideal of "an *educative society*, offering to all citizens every possible access to the cultural heritage." (p. 42) There are grave social and political issues involved here, and it is perhaps regrettable that a fuller record of

the comments of the policy-makers present was not included in the book. The nature of these issues was intimated in a remark by one of the discussants, Ralf Dahrendorf (West Germany), that "a man or woman has the right *not* to be educated and certainly the right not to be trained for a job or career according to the passing requirements of the national economy." (p. 20)

So we return to the latent conflict between the "resources of talent" approach to education and the wider goal of a free society. Yet there is a path of reconciliation, and we are indebted to Jean Floud for bringing it to light. Forecasting the demand for manpower, she says, is a hazardous business, particularly in the presence of a high rate of technological innovation. Therefore, the best service which education can perform for the economy is to send out "potentially mobile" members of the labor force—i.e., not to select students for narrow training according to their abilities, but to give as many as possible the best possible general education, "and leave talent to find its own level." (p. 92) Educators are bound to welcome the interest in their field stimulated by economic considerations, but they should insist that these considerations be far-sighted, for the economy's sake as well as for the students' and society's.

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THE HIGH SCHOOL PRINCIPAL AND STAFF DEVELOP GROUP GUIDANCE.

Ruth Fedder.

Bureau of Publications, Teachers College, Columbia University, New York, 1962. 116 pp. \$1.50.

This little paperback presents some basic and useful ideas for the counselor,

teacher, or school administrator. Although there is nothing original here, there is a good amount of practical "how, when, and where to do it" advice.

The book deals mainly with the organization and administration of curricular and co-curricular school activities. One might wonder why the title is *Group Guidance*, since so much of the material appears to this reviewer to be related mainly to education in general, and to guidance specifically in only the most vague fashion. According to the author, just about everything done in school is group guidance. Philosophically, this may be true but the modern guidance person is concerned with some very real and urgent problems in students which cannot effectively be met with educational jargon and platitudinous phrases such as growth, self-realization, self-actualization, and fulfillment.

The presentation of the need for teamwork in considering the students' concerns is well handled. School personnel need this type of practical advice on how to implement the team concept in the educational setting. Still, the author treats classroom teachers as guidance specialists, which by training and experience they rarely are. Excellence in the guidance function on the part of the teacher is presumed, a dangerous mistake. Only slightly redeeming is the rather naive idea that short in-service training programs solve all the problems of the classroom teacher in the guidance role.

The overall emphasis on concern and interest in the student rather than lessons is very nice yet its implementation is loaded with a mechanical, manipulative approach which goes so far as to violate the students' confidence when in the teachers' opinion it is in his best interests. There is much talk of "adjustment," an idea which Philip Wylie

has so aptly called "the grimmest demon of our day"; even such a phrase as "spiritual ideal" is mentioned. The actual approach to guidance might be called "socialization." There is concern with teaching social skills, good habits, and good grooming. When we mix "adjustment" with "spiritual ideals" we seem to have some type of answer to all types of questions which perhaps really means we have no answers at all.

We find here significant information on many topics. There are bits and pieces on human development, personality theory, adolescent psychology, and educational philosophy. It is unfortunate that there is almost no discussion of group counseling, which to this reviewer is the basic and most important method of implementing the group guidance function.

Fedder presents an easily understood, mechanical approach to dealing with curricular and co-curricular school activities. Her ideas are well known, clearly presented, and nicely integrated with modern educational philosophy. There is much basically unrelated yet interesting data and the material generally is very practical and easy to apply. One still wonders why the word "Guidance" appears in the title; that area is hardly looked at in its most significant sense.

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SOVIET EDUCATION: ANTON MAKARENKO
AND THE YEARS OF EXPERIMENT.

James Bowen.

The University of Wisconsin Press,
Madison, 1962. xi + 232 pp. \$5.00.

How did the Soviet Union cope with the specter of millions of *besprizorniki*—World War I orphans—caught in the wasteland of the disintegrating old or-

der? How did Anton Makarenko, the famed educator, work out a blueprint for the transformation of the hordes of *besprizorniki* into disciplined, dedicated members of a new society? How did Makarenko's ideas become an official Soviet educational philosophy? These three interrelated questions are given systematic answers in this lucid, fast-moving, and unpretentious book.

The life story of Makarenko, as a Soviet educator, falls into two distinct periods. During the first period (1920-1935), he worked in the Gorki and Dzerzhinskii "colonies" of *besprizorniki*. This phase coincided with "luxuriant romanticism" in Soviet education, characterized by a quest for new didactic techniques and sociological rationales for the educational process. In his desperate but dedicated search for the most effective methods to rehabilitate the swarms of *besprizorniki*, Makarenko blended continuous experimentation with the philosophy of utilitarianism, the sociology of the primary group as the essential socializing agency, and a rather dogmatic acceptance of the officially announced norms upon which the future Soviet society was to be built.

Although Makarenko's ideas of this period were mostly exploratory and unsystematic, they were rich with insights into the depths of humanity's basic task of perpetuating itself by the incessant and predictable transmission of culture, its wisdom, and its values.

During the second period of Makarenko's educational odyssey (1935-1939)—heralded by his *A Book for Parents*—experiment retreated before reflection, and the inductive method gave way to a logical integration, systematization, and rationalization of educational wisdom. It was during this period that Makarenko, encouraged by Maxim Gorki, established himself as a prolific writer. His literary output included not

only such capital educational works as *The Road to Life* and *Learning to Live* but several plays and novels as well. It was also during this period that his educational theories received wholehearted official support and that his peers recognized him as the country's leading theoretician and philosopher of education.

Profesor Bowen is fond of the hero of his book; he is particularly impressed with Makarenko's humanity, his readiness to combine empirical wisdom with intuition, and his steadfast resistance to the bureaucratization of education. He is equally impressed with the main outlines of Makarenko's sociology of education based on the recognition of the primary group, voluntary acceptance of collective life by the individual, and the internalization of social norms as the *sine qua non* of education.

But Bowen by no means endorses all of Makarenko's basic propositions. He notes cogently that Makarenko's conceptions of the primary role of social environment were unrealistic in one important respect: Makarenko viewed social environment not in terms of the existing reality but in terms of an idealized future Soviet society.

The author is also critical of Makarenko's tendency to undervalue the element of individuality within personality. "Individuality, for Makarenko, was an irregularity in the collective life, caused by a disruption of the normal human state." (p. 122) Looking upon education as a rational activity that makes the individual integral with the group, Makarenko allowed for no gratification of human needs independently of tight group-bound mechanisms. He regarded these mechanisms as instruments for the achievement of social direction as outlined by Marxian philosophy and interpreted by Soviet authorities. The cardinal weakness of Maka-

renko's philosophy was that, while allowing for internal weaknesses in the educational process (stemming from inadequate teaching techniques), it did not allow for external weaknesses (originating in the social system).

Makarenko's educational theory suffered appreciably from his insistence that, before their identification with individual colonies, the *besprizorniki* lived a life of normlessness and of moral *tabula rasa*—that they were not anchored to a social system. It was for this reason that he showed no interest in their past and that he refused to look into the dossiers containing tidbits from their life stories. His environmental determinism applied only to education as a formal, rational, and directed process. The strength of Makarenko was not in his views on the past of the *besprizorniki* nor in his dreams about the future society, but in his altruistic, profoundly human, and remarkably erudite efforts to resolve the most acute educational problem of the day—the human rehabilitation of the *besprizorniki*, a work which has secured him a permanent place in the annals of education.

The rich ideas scattered through Makarenko's voluminous works are given a systematic, competent—and judiciously critical—presentation in Professor Bowen's study.

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THE WIDENING WORLD OF CHILDHOOD:
PATHS TOWARD MASTERY.
Lois Barclay Murphy.
Basic Books Inc., New York, 1962.
399 pp. \$10.00.

As the study of child growth and development has grown more sophisticated, interest has shifted from the study of abnormality, through an attempt at normative prescription, to an approach

to recognition and understanding of the child as an organism interacting with a milieu. Instrumental in fostering such an approach and invaluable in its contribution of data and insight for such understanding has been the longitudinal study. About thirty years ago researchers started continuing studies of American children; these studies have multiplied and the reports of results are increasing. We may expect, as these results continue to be made available, that the available data about child growth and development will expand in geometric fashion. Herein, of course, lies the problem—the conversion of a mass of data to useful knowledge involves a process of selection, organization, and presentation that is extremely difficult. In the case of the longitudinal study the process seems unusually difficult; involving as it does the selection of the population samples, the behaviors to be included, the situations to be described, the relationships to be evaluated, the time dimensions to be covered, the observational techniques and evaluating procedures to be employed, and the interrelationship of all these in a unified or coherent manner.

The Widening World of Childhood: Paths Toward Mastery is a report based on a longitudinal study being conducted in Topeka, Kansas. From a base of over one hundred normal infants about whom detailed records were available,¹ a continuing group of thirty-two preschool children were selected for study until the ages of eleven or twelve. "Methods of the research included pediatric examinations, psychiatric interviews, psychometric and projective tests such as Rorschach, Children's Appercep-

tion Test and Miniature Life Toys, primarily, and standard body photographs. Interviews with mothers provided data both on home setting and on the child's way of dealing with dilemmas at home." (p. 9) Observations in a variety of situations, "structured" and "unstructured," were recorded by participant and parallel observers. This book focuses on the children in the preschool period and is organized about a concept of "coping." Others have used the term, but the author feels that it is worth systematic discussion and "it seems most natural as a way of talking about and thinking about what we see when children confront new situations and challenges calling for responses not previously crystallized." (p. 6) The thirty-two children included in the study are seen as a sample of the middle-class white majority in a middle-sized Midwest town. The book is divided into four sections. Part I, entitled "The New and the Strange," consists of reports and interpretation of children's encounters with new experiences. Part II, "Crises," describes in detail the behaviors of a boy involved in an accident and of a girl hampered by polio as well as presenting several vignettes of children using various mechanisms to deal with "threatening" environments. Part III reviews the patterns of coping under the title of "Aspects of Mastery." Part IV explores further implications under the heading of "Coping and Development."

The book, while sometimes stimulating, occasionally brilliant, and consistently informative, fails to accomplish its purpose. The failure is attributable to two basic shortcomings. The first is a failure of style. For just whom this book is intended is not clear and the level of writing swings from a clear, simple exposition—perhaps intended for a mother or beginning student of child devel-

¹ Escalona, S. and Leitch, M., *Early Phases of Personality Development: a Non-Normative Study of Infant Behavior* (Evanston: Child Development Publications, 1953).

opment, to a technical, analytical discussion—perhaps fit for a psychiatrist or graduate student. For example:

Through his mouthing the baby discovers the manyness of the world out there to be explored, the varieties of interest it can arouse, the range of satisfaction it offers, and he discovers himself as an active agent in exploring. In other words, what remains is the out-there-ness of many things, and the potentiality of putting himself in relation to that out-there-ness, and doing something to know it better—if not mouthing, handling—or just looking. This drive to go ahead and do something about discovering the infinite muchness of what is out there.... (p. 357)

And in the same chapter:

All ego functions arise from genetic dispositions which carry their own energy; at the same time their development takes place in an interpersonal context which has much to do both with the support and patterning of narcissism, and with the investment in the environment that augments and nourishes or deprives the so-called autonomous ego functions. (p. 373)

The second, and more important failing of this book, lies in its organizing concept. The "coping" concept emerges too broadly to give a useful unification. "Coping thus includes not only the more elementary situation-oriented devices—but also the complex ways in which the child deals with reality as he sees it...."

The descriptive material of the book, primarily in the first two sections, is consistently interesting, informative, and a model of clarity and style. However, the interpretive material, while containing useful insights and consist-

ently demonstrating the competence and understanding of the author, often seems unrelated to the descriptive material presented, or even to the longitudinal study itself. In fact, to an unfortunate degree, it seems to contain a large amount of theorizing at a high level of abstraction, and while it is quite probable that the theories are related to the data of the study, this relationship is not clear to this reviewer.

It may be that I am asking more of this book than it set out to accomplish. It is presented as exploratory and, as such, it has stimulated my interest in following further the progress of this study.

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STUDIES IN THE ECONOMICS AND

POLITICS OF PUBLIC EDUCATION.

Project Director: Jesse Burkhead.

Project for Research in Educational Finance, Maxwell Graduate School of Citizenship and Public Affairs, Syracuse University, New York, 1962. Variously pagged. \$1.75 each.

No. 1, SCHOOL MEN AND POLITICS: A STUDY OF STATE AID TO EDUCATION IN THE NORTHEAST.

Stephen K. Bailey, Richard T. Frost, Paul E. Marsh, Robert C. Wood.

No. 2, GOVERNMENT AND THE SUBURBAN SCHOOL.

Roscoe C. Martin.

No. 3, NATIONAL POLITICS AND FEDERAL AID TO EDUCATION.

Frank J. Munger and Richard F. Fenno, Jr.

No. 4, ISSUES IN FEDERAL AID TO EDUCATION.

Sidney C. Sufrin.

Perhaps the most significant aspect of the Syracuse series of twelve mono-

graphs on the economics and politics of public education, of which these titles are the first released, is that this study has been made. It is evidence of a new interest of political scientists and economists in public education. As Professor Bailey notes in his preface to the first volume, *Schoolmen and Politics: A Study of State Aid to Education in the Northeast*:

The fact that this monograph is one of the first serious attempts to illuminate the politics of education is itself worthy of comment. . . . Academics with an interest in the sociology of knowledge could well address themselves to the question why it is that the two areas of our political culture which take the biggest slices of public money, defense at the national level and education at the state and local level, have received so little attention from professional political scientists . . . [who] seem to be attracted to subjects for research and analysis in inverse relation to their fiscal importance.

It seems very likely that many other reports will follow, which will further illumine public education from the viewpoint of political scientists; an assessment of state school finance and related political action in the midwestern states is expected soon.

The four titles reviewed here are the first fruits of an extensive study of the economics and politics of public education, directed by Professor Jesse Burkhead of the Department of Economics at Syracuse University. The initial concern of the study was with the economics of public education. However, it was soon realized that this question is really one of "political economy"—an old-fashioned term now being revived to indicate the relation between

the economics of public finance and the political processes by which specific financial and tax decisions are reached.

In the first study, *Schoolmen and Politics*, Professor Bailey and his colleagues have sought to define the real political processes by which improved state aid programs have—or have not—been attained in the New England states, New York, and New Jersey. Their conclusions are based upon a sophisticated view of the disparate styles and mechanisms of politics in these states. Of great interest to educators will be the recognition of the key political role played by such "academic scribblers" as George Strayer, Robert Haig, Paul R. Mort, and Alfred D. Simpson. The variable success of the "schoolmen" in their search for more adequate state assistance for local school systems has been affected in large part by differences in the leadership and sophistication of "pro-school" organizations. However, the historical, economic, and ethnic factors of each state are also found to be important, and the critical importance of the attitudes of key political leaders is emphasized. It might be thought that such a study is of merely regional significance, but this is not the case. Schoolmen and educational enthusiasts in any state could well benefit by using this approach in planning their strategy and tactics at their state capitol.

Another merit of the Bailey study is to revive the validity of the ideal of political hero. It is quite evident that a few individuals have been of key importance in state school politics, which is merely one thicket in the extensive jungle of general state politics. To a generation brought up to regard "pressure groups," mathematical analyses of voter behavior and legislative activities, and the like as *real* determining factors, this is a healthy reminder that no idea

or program can be more effective than its protagonists.

Roscoe Martin's study of *Governments and the Suburban School* first suggests what is statistically significant about these schools, as they have evolved along with the general development of "suburbia." Professor Martin then turns his attention to the peculiar—in the eyes of political scientists—structure of largely autonomous school government, and raises some pointed questions about the validity of this concept which will no doubt seem heretical to many educators. Nevertheless, these questions are highly pertinent to a profession which alleges that one of the primary objectives of the public schools is to awaken a lively sense of civic responsibility in their students. Furthermore, Professor Martin suggests that a variety of social, economic, and political forces may force a restructuring of the relationship between schools and municipal or other civil governments.

The study of *National Politics and Federal Aid to Education*, by Frank J. Munger and Richard F. Fenno, Jr., is an excellent review and assessment of the past and future of a very complex and protracted political process. The authors avoid the temptation of oversimplifying the complex political forces and groups involved, and no educator should miss their candid—if gloomy—appraisal of the future. In particular, their analysis of the weakness within educational groups and consequent forecasts of continued stalemate on what the issues are should be taken to heart. The disastrous split of 1962 and the evident lack of organized support

for the "package proposal" offered in 1963 further support their point.

The fourth study in the Syracuse series is Sidney C. Sufrin's review of *Issues in Federal Aid to Education*. This is a comprehensive assessment of the several areas of formal controversy, and provides a useful counterpart to the preceding volume. The only question which might be raised concerns Sufrin's "nominalist" analysis of these issues.

For some, the problem of "federal aid to education" will undoubtedly be settled by their view of these objective issues—federal control, the degree of fiscal need and how to distribute federal funds, and so on. However, this approach ignores the submerged but powerful issues which the objective arguments are sometimes used to camouflage—racial integration, religious antagonisms, local and state resistance to federal centralization, fear of the introduction of novel ideas in intellectual despotisms, desire to minimize federal expenditure in non-military areas, and so on. But Munger and Fenno do consider these points.

These first four items of the Syracuse studies, with the eight more which are in prospect for later this year, are an invaluable contribution to our knowledge of various aspects of the "public character" of American education in the mid-twentieth century. The first four should be particularly useful to "schoolmen" and their allies in seeking to improve their strategic and tactical skills in securing political and financial support.

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ROBERT E. HERRIOTT received both his A.M.T. and doctorate in the Sociology of Education at the Harvard Graduate School of Education, where he is now Assistant Professor of Education. He is associated with Neal Gross in The National Principalship Study, a sociological inquiry into the role of the public school principal, and is especially interested in large sample survey research and educational aspiration.

FRANK A. LOGAN, who received his Ph.D. degree from The State University of Iowa, is presently Associate Professor in the Department of Psychology at Yale University. His

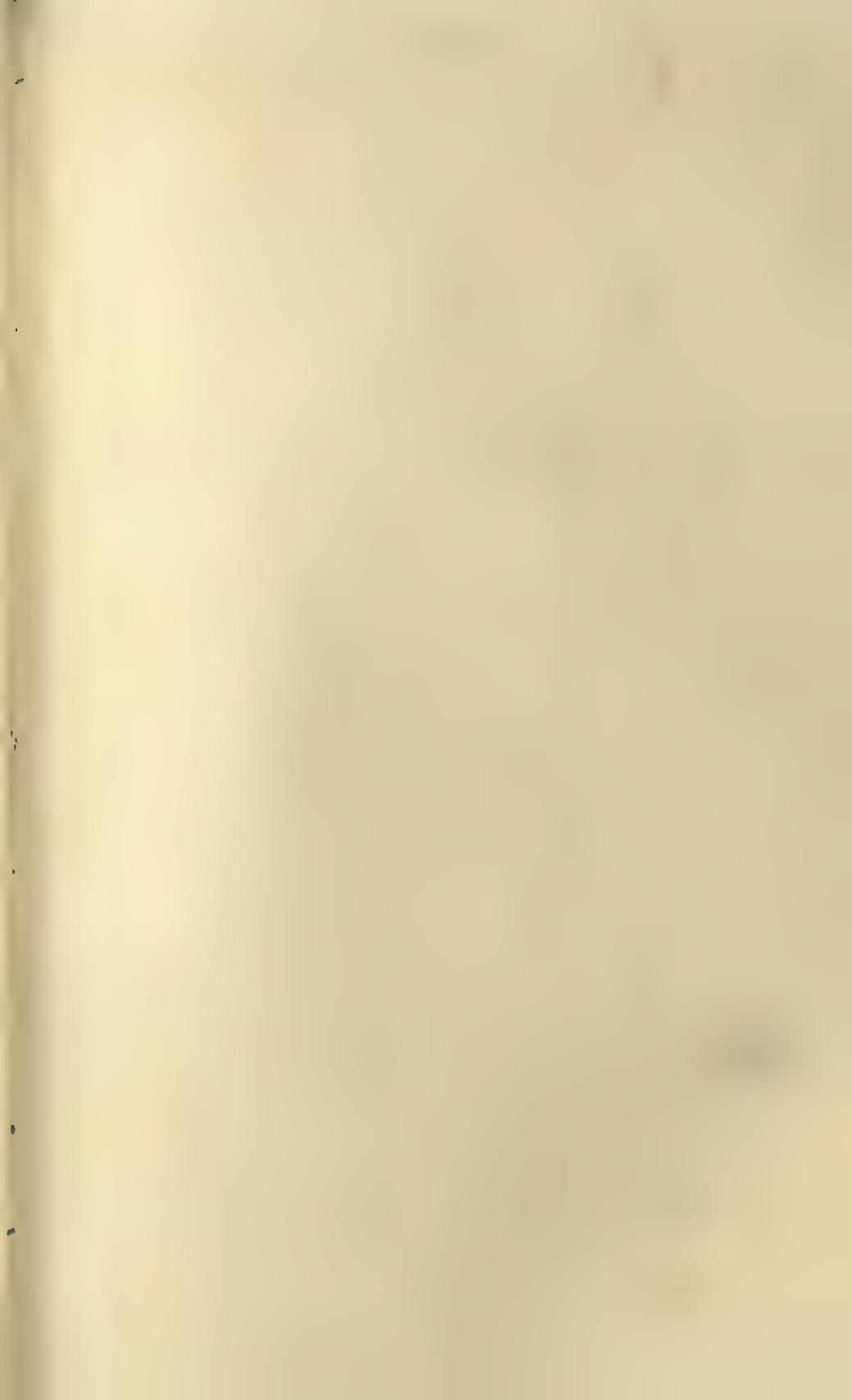
interest in learning and behavior theory is evident in his recent book, *Incentive: How the Conditions of Reinforcement Affect the Performance of Rats* (1960), which contains the theoretical analysis and laboratory research used as a basis for his article in this issue.

D. J. O'CONNOR is Professor of Philosophy at the University of Exeter, England. He spent the academic year 1961-62 as Visiting Professor of Education and Philosophy at the University of Pennsylvania. Among his writings are *John Locke* (1952), *Introduction to Symbolic Logic* (3rd edition, 1957), and *An Introduction to the Philosophy of Education* (1957). His concerns, as he says, lie "on the borderline between logic, philosophy, and linguistics."

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EDWARD SHAPIRO has worked as an economist in government agencies in Washington and Detroit, and as a free lance for seven years in the fields of business research and credit analysis. He has a Ph.D. in Economics from Harvard University, is now Assistant Professor of Economics at the University of Detroit, and is especially interested in macroeconomic theory.

CONTRIBUTIONS • The HARVARD EDUCATIONAL REVIEW welcomes contributions by teachers, scholars and research workers in education, and persons who are working in related fields and professions. In matters of style, the University of Chicago *Manual of Style* is considered definitive. While articles in any style or form will be considered for publication, the Editorial Board reserves the right to return accepted manuscripts for the required stylistic changes. It is requested that manuscripts be submitted for consideration in two or more copies. Contributions should be addressed to the Editorial Office.





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This article is both new biography (many of the author's sources have not hitherto been used) and a contribution to our understanding of the early 19th Century American college. Messerli's account is instructive, entertaining, and a valuable corrective to plausible but unfounded interpretations of the great reformer's early years.

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Horace Mann at Brown

The two great points to be gained in intellectual culture, are the discipline and furniture of the mind. . . . A commanding object, therefore, in a collegiate course, should be to call into daily and vigorous exercise the faculties of the student. (Yale Faculty Report of 1828)

The attempt to force together sixty or eighty young men, many of whom have nothing, or almost nothing in common . . . and compel them to advance *pari passu* during four of the most active and valuable years of life, giving to the most industrious and intelligent no more and no other lessons, than to the most dull and idle, is a thing that is unknown to the practical arrangements for education in other countries. . . . (George Ticknor, 1825)

SENTIMENTALITY AND HINDSIGHT

If one is to judge from Horace Mann's own account, the period from 1816 to 1819 which he spent at Brown University had little significance as preparation for his future educational work. This is particularly striking when it is recalled that other men of his generation never tired of eulogizing their *alma mater* and the venerable sages who supposedly gave them a philosophy of life while launching them on careers of prominent public service. Horace Mann was not one of these. Despite his later penchant for self-examination and expression, his references to the years at Brown offer little substantive

information. He preferred to think of this time as a heroic struggle to obtain an education, plagued by poor health, overwork, poverty and limited preparation, but he also wished it understood that virtue and perseverance triumphed. If there was some "Mark Hopkins" here, Mann never acknowledged it. The motif at Brown was self-help and sacrifice.¹

There is more here, however, than a heart warming story of a poor farm boy working his way through college. Since Mann later became a famous educator, researchers went back to the archives to see if something could be found in his experiences at Brown which appeared to predict if not "cause" his achievements in the common school reforms. They did not return empty handed. Mann had been valedictorian of his class and the existent manuscript for his remarks at graduation contained numerous statements which seemed to "anticipate" his later work.² That there was a lapse of almost two decades between commencement and his first major efforts for the schools of Massachusetts did not seem important.

Yet if Mann's own account was limited, he did pass on to biographers and educational historians a surprisingly large body of primary materials which not only shed light on these formative years, but also offer new insights into the nature of American higher education in the period between the Revolutionary and Civil Wars. This is particularly true in terms of the curious gap between the professed objectives and formal instruction of the colleges on the one hand and their actual educational function on the other.

FROM FRANKLIN TO PROVIDENCE

Horace Mann was born in 1796 in Franklin, Massachusetts, a community of self-sufficient farmers. After the death of his father in 1809, he and his brother, Stanley, found their environment limiting and set out to escape its confines.

¹ John Livingston published a short biography of Mann in his *American Portrait Gallery Containing Portraits of Men Now Living* (New York, 1852), III, pt. 3, 178-223. This is largely Mann's personal account. In an age that was to apotheosize men who took their cue from Horatio Alger, Mary Mann and succeeding biographers accepted and sentimentalized the description in the *Portrait*. Mrs. Mann wrote, "From that strain upon his health [his preparation for college] and the still harder labors of his college-life, he never recovered. The rest of his life was one long battle with exhausted energies; but how valiantly he fought it!" in *Life of Horace Mann* (Boston, 1865), I, 21. For later accounts, see George Allen Hubbard, *Horace Mann, Educator, Patriot and Reformer* (Philadelphia, 1910), pp. 20-31, and Edward Irwin F. Williams, *Horace Mann, Educational Statesman* (New York, 1937), pp. 17-24.

² Horace Mann, "The Gradual Advancement of the Human Species in Dignity and Happiness," September 9, 1819, MS in Mann Papers, Massachusetts Historical Society (hereafter MHS); in this, Mann spoke in sufficiently general terms so that whatever field he might have entered—law, politics, or literature—one could find sections here which are premonitory of his later work.

Stanley first became a manager and then owner of several new textile mills in the area. For alert and ambitious young men in Franklin, the growth of manufacturing opened another opportunity for advancement. With the mills came an increased circulation of money, a development which enabled more boys to go to college.³

It is not clear when Horace Mann first decided to prepare for Brown, but it was no later than 1814 when he was eighteen years old. Whatever preparation he was able to obtain was augmented when Samuel Barrett, an itinerant school master came to Franklin and held classes. Barrett's special abilities were in English grammar, Latin and Greek, and Mann later credited this man with having readied him for Brown in a period of six months.⁴

The trip to Providence was probably the first time he had travelled far from the community and clearly the beginning of a life not possible in Franklin. Even so, the transition was not abrupt. Since many Massachusetts fathers preferred Brown over Harvard, Mann found other young men from his home state. Orthodox Yale was too far away and so they settled for a dissenting school, nominally Baptist, rather than expose their sons to the Unitarian "heresies" at Harvard. Political developments also influenced the size of the college. Those fearing latent Federalism at Harvard found a reasonably neutral substitute at Providence.⁵

Farm boys from Massachusetts, such as Mann, were also attracted to Brown for economic reasons. It was well-known that by self-denial and rigid economy, even the less affluent yeomen could send their sons through school. Since tuition, room, and board rarely exceeded one hundred dollars a year, it was pos-

³ For a general discussion of the changing social and economic patterns in Franklin during Mann's youth, see Jonathan C. Messerli, "Horace Mann: the Early Years, 1796-1837," (unpublished Ph.D. dissertation, Harvard University, 1963), I, 1-54.

⁴ The account in Livingston, "Horace Mann," *American Portrait Gallery*, pp. 184-185 states that Mann prepared for college in the six months prior to his admission, which would be either late in 1815 or early 1816. That his preparation actually began before this date and was not quite as remarkable as suggested by Livingston can be seen from a letter from Sylvester Bishop to Horace Mann, January 6, 1814, *Mann Papers*, MHS which indicates that already at this time Mann was studying Latin and preparing for college.

⁵ Arthur Darling, *Political Changes in Massachusetts, 1824-1848* (New Haven, 1925), p. 28; Samuel Gridley Howe, *The Journals and Letters of Samuel Gridley Howe*, Laura E. Richards, ed. (Boston, 1906), I, 15.

Geography compounded these influences. Between 1797 and 1846, Dedham, Massachusetts, a community near Cambridge, had no less than 56 of its young men graduate from Harvard, while in the same period, it had only 11 graduates from all other colleges. Brown on the other hand claimed all the college graduates from Franklin from 1790 to 1812. In 1813, one person graduated from Yale, and from then until 1832, Franklin boasted of eight more graduates, all from Brown.

As far back as the catalogues go, Massachusetts men outnumbered those from Rhode Island. From 1800 to 1810, 69% of the students were from the Bay State and 20% from Rhode Island. This ratio was fairly constant for the next twenty years. See Herman Mann, *Historical Annals of Dedham* (Dedham, Mass., 1847), pp. 86-93; E. Smalley, *Centennial Session* (Boston, 1838), pp. 54-56; Walter C. Bronson, *History of Brown University* (Providence, 1914), p. 289.

sible for many poor boys to support themselves partially by keeping school during the long winter vacation.⁶ Asa Messer, Brown's president, had purposely lengthened this period to help increase enrollment. One Brown alumnus summarized the experience of his classmates saying, "They studied hard. They lived plainly. They taught school in the long vacation."⁷ Brown offered a real bargain that was recognized by more than one Yankee father. Properly managed, Horace Mann's legacy was enough to pay for his college education.⁸

His transition was also helped by the rural atmosphere at the college. Located outside of Providence on a landscape that was dotted with but a few houses, the agrarian appearance of the school was enhanced by the presence of the president's horse and cow, whose function it was to keep the campus grass in check.⁹ For home consumption, at least, the seaport of Providence was described by Mann and his roommate, Ira Barton, as a place of dissipation to be avoided, and they proudly spoke of their country upbringing as a sufficient defense against the temptations of the town. No doubt virtue was reinforced by meager funds. Mann wrote to his mother that unlike Franklin, "Everything here costs money, without it is being obliged to go to meetings [church], and then I must hire a seat if I go where I wish."¹⁰ Attempting to ease any misgivings caused by his departure, he assured her that no matter how pleasing his new life would be, it would still be an insufficient substitute "for the guardian care of a parent" and "the enjoyments that arise from the society of kindred and the fond endearments of a parental home." He reported that he and his associates were "deeply engaged in study." His mother would be glad to know he had entered a class, "the major part of which are remarkable for their steadfastness," and he hastened to add these were in keeping with his own standards.¹¹

COMPOSITIONS, RECITATIONS, AND DISCIPLINE

To gain entrance to Brown, candidates were examined by President Messer and other members of the faculty. Officially, prospective freshmen were expected to construe and parse Tully and translate the Greek Testament and

⁶ Mann paid an admission fee of \$20.00 on September 25, 1816. In addition, his first year's expenses were \$18.85 for tuition, room rent, and library fees, and \$79.30 for "commons" (board); receipts in Mann Papers, MHS.

⁷ N.A. [Solomon Lincoln?] *Brown University under the Presidency of Asa Messer, S.T.D., L.L.D.* (Boston, 1867), p. 13; Samuel Brenton Shaw, "College and Town in 1819," *Memories of Brown*, ed. Robert Perkins Brown *et al.* (Providence, 1909), pp. 38-39.

⁸ [Thomas Mann], "Will of Thomas Mann, Yeoman of Franklin, County of Norfolk, Massachusetts," June 9, 1809, MS in Mann Papers, MHS.

⁹ *Memories of Brown*, pp. 38-39.

¹⁰ Horace Mann to Mrs. Thomas Mann, March 24, 1817; Ira Moore Barton to Mary Mann, December 4, 1863, Mann Papers, MHS.

¹¹ Horace Mann to Mrs. Thomas Mann, September 25, 1816, Mann Papers, MHS.

Virgil. In addition they were asked to write correct Latin prose and show evidence of good moral character. Mann was admitted to full sophomore standing; his examiners satisfied that he could begin work in Caesar's *Commentaries* and some of Cicero's orations, as well as Homer's *Iliad* and Longinus' *de Sublimitate*.¹² Instruction in geography, logic and elements of elocution, and Euclid rounded out his course work for the year. All undergraduates took the same prescribed curriculum; the mature and young, while varying in kinds and quality of preparation, moved *en masse* through the required courses. The assumption was that every liberally educated man must learn certain branches of knowledge. Electives had no place here since it was argued that the undergraduate was too immature to make such decisions for himself. Thus, pedagogically, the horse and the ox continued to be hitched to the same plow.¹³

This lock step curriculum was limited even further by the methods of instruction. Most of the professors were elderly men. Firmly implanted in an armchair at the head of a class, they heard recitations, insisting that the bright imaginative students such as Mann reproduce the texts exactly, even to the extent of repeating the obvious errors of the printer. Instruction in languages was largely a mechanical translating and parsing and it was possible to pass with clever guesses and occasional cheating.¹⁴

Although desiring to free themselves from a dependence on English and French ideas, the faculties of this period still lacked confidence in their own indigenous but incipient intellectual heritage as the basis for a college curriculum worthy of the young republic. Their alternative was to choose the classics of Greece and Rome. But these, instead of inspiring imaginative lectures and penetrating Socratic dialogues between teacher and student, were held up as the quintessence of human wisdom, to be reproduced but not to be questioned.

Mann quickly learned the *modus operandi*. Some idea of what this en-

¹² *The Laws of Brown University, 1803*, p. 1, Brown University Archives (hereafter BUA); for a first-hand account of the entrance examinations, see William Stanley to Horace Mann, June 24, 1822, Mann Papers, MHS. The official record of Mann's entrance at Brown is in the *Catalogue of Brown University, 1816*, BUA. The statement reads, "Horace Mann from Franklin, Mass., a sophomore."

¹³ Ira Moore Barton, "Horace Mann, 1819," *Memories of Brown*, pp. 41-42; Bronson, *History of Brown University*, pp. 102-103; Mann found himself among classmates varying widely in age. At graduation, one member of the class was eighteen, while another was twenty-five. Nine members were either twenty-two or twenty-three years old. See *Historical Catalogue of Brown University, 1764-1914*, (Providence, 1914), pp. 125-127.

The classical apology for the type of program in vogue at Brown is the *Reports of the Course of Instruction in Yale College by a Committee of the Corporation and the Academic Faculty* (New Haven, 1828). The system had been under attack for many years and some curricular reforms had been initiated at Harvard and the University of Virginia, but the Yale Report was used effectively to stifle much of the movement on other campuses.

¹⁴ Alvah Hovey, *Barnas Sears* (New York, 1902), pp. 13-14.

tailed is suggested by the entries in his notebook dated "Providence B.U. October 1st, 1816." Although he had not previously gone beyond the confines of Franklin and was probably ignorant of the geography of Massachusetts, he was now copying down the names of strange countries, cities, and rivers in neat and tedious rows. In the first lesson he carefully listed fifty countries, each with its neighbors. Subsequent assignments spanned the globe with columns of exotic islands—each with their surrounding bodies of water—bays, gulfs, and the sources, and destinations of rivers. These he was expected to memorize for some later recitation. Even when the entry involved a single country, the facts dictated by the instructor were merely lists of major cities and their populations. Anything remotely resembling economic or social geography was not presented, and at no time was Mann required to draw his own maps of these places. Into the second half of this book, he put his notes on Euclid. Working through Books I to IV, he carefully copied each theorem together with the standard textbook diagrams.¹⁶

Brown's curriculum had been established thirty-five years before. There had been minor changes since then, but for the majority of the classes, the textbooks remained the same. The first significant reform took place officially in 1823 with the introduction of the study of government and international law as well as Paley's popular *Moral Philosophy and Natural Theology*. These were first recorded in the college statutes four years after Mann's graduation, but they probably had been in practice during his time, the innovation preceding, rather than following the official policy change.¹⁷

The new regulations also required weekly English compositions by the three upper classes, a development which had been anticipated even before Mann's time. Training in writing prose had been one of the earliest concerns of the faculty. In 1815 the president reported he was correcting almost fifty essays each week and by 1826, Professor Tristam Burges begged for relief from his paper work in order to have time to listen to his students' declamations.¹⁸ In three years, Mann wrote more than thirty essays. In them he gave evidence of a grammatical competence and vigorous polemical style which usually received a mark of approbation from his instructor.¹⁹

These essays offer a clue to the strengths and weaknesses of the instruction that was typical of Brown and other American colleges at the time. It was assumed that the communication of ideas was fundamental to training future leaders, whether for the pulpit, the bench and bar, or the legislative assembly.

¹⁶ This book is part of the Mann Papers, MHS.

¹⁷ Bronson, *History of Brown*, pp. 166-167.

¹⁸ Tristam Burges to the Corporation of Brown University, November 19, 1826, as quoted in Bronson, *History of Brown*, p. 168.

¹⁹ Usually a "+" mark in red ink. Existent MSS are in the Mann Papers, MHS and the Robert L. Straker Collection, Antioch College Library.

Training for this, however, was a series of exercises in which the students were expected to organize their ideas into Procrustean categories. These were mainly determined by rules of formal logic and ethical considerations and explained and garnished with literary embellishments, consisting largely of similes and metaphors. Ironically, in seeking models for discourse and debate, apparently so essential to the future of the new republic, college educators were slavishly following the refined forms of Cicero and Quintilian. The mastery of these had become a major implement in the armory of the "liberally" educated man.

Because of his facility of language, Mann wrote with apparent authority on problems for which he had little understanding. He denounced English critics of American literature without mentioning a single critic by name, nor any specific American object of criticism. He also denounced fiction in general, speaking of its deleterious effects without listing a single novel he thought "harmful."¹⁹ Even though aware of a large body of geographical data, when he wrote on the Congress of Vienna, he mentioned neither statesmen, treaties, political boundaries, nor economic factors. What emerged was an uninformed wholesale fulmination against the sinister and selfish machinations of foreign despots. Somehow it must not have occurred to him or his teachers that the long lists in the geography book might have had some relevance to understanding the politics of Europe.

Unfortunately, any inherent values in studying the classics were subordinated to achieving the more tenuous goal of mental discipline. But rather than training his mind, Mann's intellect was trapped in the narrow confines of a sterile curriculum. The topics he chose for his essays indicated a broad interest in contemporary affairs, but his discussions of these show him unable to deal with political and social problems effectively. Accounts mention his intense concentration on his studies, yet the records show that Mann used the library about as much as his classmates, borrowing only eighteen books during three years of college.²⁰ The wasted effort in perfecting form and style at the expense of substance was unfortunate, but it was a far greater, perhaps tragic, misfortune that Brown and other colleges were training an entire generation of

¹⁹ E.g., see his essay "The Role of the Critic," November 27, 1818 and two untitled essays dated October 7 and November 22, 1817 in the Mann Papers, MHS.

²⁰ Brown University Library, Record of Books Borrowed by Undergraduates, 1814-1819, MSS in BUA, lists the following entries under Mann's name: March 1, 1817, *Hume's History of England*; April 12 and 26, 1817, *French Revolution*; October 10, 1817, *History of America*; November 14, 1817, *Buchanan's Researches*; April 17, 1818, *Jefferson's Notes [on Virginia?]*; April 24, 1818, *Reid's Works*; October [], 1818, *Gray's Poems and Beauties of Shakespeare*; December 11, 1818, *Curry's Speeches*; December 19, 1818, *Johnson's Lives*; February 27, 1819, *Alison on Taste*; March 12, 1819, Adam Smith, *Wealth of Nations*; March 30, 1819, *Shakespeare*, Vol. V; April 9, 1819, *Johnson's Lives*; April 23, 1819, *Adventurer*; June 25, 1819, *Campbell on Miracles*.

young men to believe that the resolution of political and social problems was based on moral imputations, verbal manipulation, and exhortation. Writing as he did, neither liberated nor sharpened his mind, but it did plant the false impression that real problems apparently could be resolved by sophistry.

Understandably, the mechanical and monotonous instruction did not narrow the customary gap between faculty and students. In his letters home, Mann had little to say about his teachers. Instead he wrote about the visit of President Monroe to the campus, the Fourth of July celebrations, and his many new friends.²¹ Only once did he mention President Messer. On another occasion he commented on John D'Wolf, professor of chemistry, who had gained his approval not so much by a knowledge of science but because, as Mann put it, "He has one object of strong desire, the happiness of mankind; and one unspeakable detestation, the tyranny of kings and the abomination of priesthood. . . . With this he combines an ardent love for our own country and all its free institutions. . . ."²²

This distance between student and teacher at Brown had been noticed prior to Mann's arrival. Writing a letter of recommendations to the Board of Trustees, an anonymous correspondent, "Alumnus Brunensis," began by agreeing that the faculty had a primary parental responsibility towards the students, but, he also added,

It is an unfortunate fact, that these two stations are viewed by many as hostile camps. An entrance into college is thought almost a declaration of war: letters of marque and reprisal scarcely come up to their ideas of the state of their relations. Perpetual hostilities must be kept up. A truce is treachery: and one in any respect friendly to the 'enemy' is a traitor. These ideas, though too foolish to be universal, still seem to be the ideas of many. Their injurious tendency is obvious.²³

Mann also was silent on the subject of athletics. Apparently there was little of organized sports for the boys, their chief physical activity being to walk down Angell Street and sit by the river.²⁴ This was not unusual for a college. Physical education and the athletic hero of the American college were first to come at a later time.²⁵

Life in the close quarters of the dormitory, uninspiring classes, and the absence of any means of dissipating the pent up energies of these active young

²¹ Horace Mann to Mrs. Thomas Mann, July 16, 1817 and June 7, 1819, Mann Papers, MHS.

²² Horace Mann to Lydia Mann, November 25, 1820, Mann Papers, MHS.

²³ Alumnus Brunensis [James Burrill], *Letter to the Corporation of Brown University, Suggesting Certain Improvements in its Academical System* (n.p., 1815), p. 9; For the identification of this author see Theodore Crane, "Francis Wayland and Brown University 1796-1841" (unpublished Ph.D. dissertation, Dept. of History, Harvard University, 1959), I, 235.

²⁴ *Memories of Brown*, p. 38-39.

²⁵ Henry D. Sheldon, *Student Life and Customs* (New York, 1901), pp. 145-147.

men proved to be the reagents for endless pranks which plagued the college administration. On one occasion, feeling they had not been given their rightful share in the local Fourth of July celebration, the students decided to hold a rump celebration. Speakers were elected from their ranks and a procession was formed. The fact that President Messer had denied their petition to use the chapel seemed irrelevant at the moment. Ingenious hands opened the lock on the door and the triumphant band marched in to celebrate their own independence. Mann was at least an observer and probably a participant, and did not conceal his delight with the event.²⁸ A year later, there was a repeat performance, but this time, he was a ringleader. Having been chosen the main orator of the day, he had a vested interest in breaking the rules. Ira Barton, his roommate, later recalled, "chum [Mann] went in, and delivered his oration amidst great applause. A trifling fine was imposed upon him; but he lost no credit with either the students or the government."²⁷

Other pranks during Mann's time were more individual in nature, ranging from horseplay to vandalism, much to the amusement of the boys and vexation of the faculty. During the December prior to Mann's clandestine speech, the boys were aroused from their sleep by the cry of fire. The steward's out-house was aflame and from there the fire spread to several haystacks in the college yard. Asa Messer's letter to more than one parent the following week made it plain that he did not consider the cause of the conflagration to have been spontaneous combustion.²⁸

Samuel Gridley Howe, later to become Mann's closest co-worker in numerous humanitarian reforms, was involved in a number of pranks. At one time he put ashes in the bed of an unsuspecting tutor, and at another, he performed the more remarkable feat of leading President Messer's horse up the stairs of University Hall. At the appropriate moment, the animal is supposed to have stuck its head out of a window and whinnied at its surprised master who happened by.²⁹ Messer's horse also put in an impromptu appearance at the Junior exhibition sporting the freshly painted letters, "A.M." on its flanks.³⁰ Such things seasoned an otherwise monotonous fare. Generally speaking, Mann, unlike Howe, had little to do with this form of extracurricular activity.

²⁶ Horace Mann to Mrs. Thomas Mann, July 16, 1817, Mann Papers, MHS.

²⁷ Barton, "Horace Mann, 1819," *Memories of Brown*, pp. 41-42; also Ira Moore Barton to Mary Mann, December 4, 1863, Mann Papers, MHS; the MS for Mann's speech is in the Mann Papers, MHS.

²⁸ Asa Messer to Amos Binney, Esq., December 18, 1817, Brown University—President, Letterbooks, 1811-1836, MS in BUA; one of the culprits was Amos Binney who became a prominent Boston physician, member of the General Court, and author of scientific articles. See *Historical Catalogue of Brown University, 1764-1914*, p. 103.

²⁹ Asa Messer to Joseph Howe, March 12, 1819, Brown University—President, Letterbooks, 1811-1836, MS in BUA; *Journals and Letters of Samuel Gridley Howe*, I, pp. 15-16.

³⁰ George B. Peck, "College Pranks in the Early Twenties," *Memories of Brown*, pp. 46-48.

Conveniently overlooking the Fourth of July episode, Barton could not remember "a single instance of impropriety" on his part.³¹ Evidently there was more than one road to the making of a reformer.

Notwithstanding such activities, accounts of this period record a surprising satisfaction with the behavior of the students. Mann was impressed with the "sobriety" of his classmates, something which "is very consonant to my own feelings," he wrote.³² George Fisher, one of the more pious of Mann's classmates, conceded that, "With respect to the general character of the students in college, it is, comparatively speaking good. There are very few dissipated characters among us."³³ Such an admission implied as much about the decorum in other schools such as Harvard and Yale, as it said about Brown. Harvard had a student revolt in 1807. In 1819 a student rebellion rocked the New Haven community and in 1828, while faculty members were defending their curriculum as the best way to develop "furniture of the mind," the sons of Eli were getting ready to put furniture of a different sort to novel uses as the town folk activated a piece of ancient artillery and prepared to march on the campus. From 1800 to 1830, Princeton had no less than six formidable disturbances. Half the student body was sent home in 1816.³⁴

Indeed, by comparison, Mann's classmates could truly be noted for their "sobriety." These explosions on other campuses make the complacent observation of James Plaisted (Brown, 1823) more understandable:

Our college affairs remain [sic] 'in statu quo.' I can recollect nothing that has occurred, that you would give one fathing [sic] to know. A few balls have been rolled as usual, and some poultry stolen and roasted—The owners swore and threatened but the Old Doctor says nothing, so long as they let his horse alone, he troubles himself but little about his neighbour's hens or turkeys—³⁵

Such things were considered good because they might have been much worse.

Aware of the constant potential for chicanery, the faculty and trustees of Brown appear to have adopted the laws of Yale College of 1745.³⁶ Upon these they had constructed an elaborate and imposing framework of disciplinary action to punish offenders and discourage the less courageous. Laws were

³¹ Ira Moore Barton to Mary Mann, December 4, 1863, Mann Papers, MHS.

³² Horace Mann to Mrs. Thomas Mann, September 25, 1816, Mann Papers, MHS.

³³ George Fisher to the alumni of the Brown University Praying Society at the Andover Theological Seminary, November 11, 1818, MS in 1816-1819 Folder, Brown University—Religious Society, BUA.

³⁴ Sheldon, *Student Life*, pp. 108-112; Bernard Christian Steiner, *History of Education in Connecticut* (Washington, D.C., 1893), pp. 162-164; John Maclean, *History of the College of New Jersey* (Philadelphia, 1877), II, pp. 72, 154, 167-168, 253, 268.

³⁵ James Plaisted to John Plaisted, December 15, 1822, MS in BUA.

³⁶ For a sample of these laws, see Richard Hofstadter and Wilson Smith, eds. *American Higher Education, A Documentary History* (Chicago, 1961), I, pp. 54-61.

enacted to deal with infractions both large and small. To speak to a roommate during study hours in any language other than Latin was punishable by fine. Under the heading of "Criminal Offences" was included the following prohibition: "All students are strictly forbidden to make indecent noises in the college at any time, either by running violently or halloing, or rolling things in the entries, or down stairs, under penalty of being fined or restricted." To enter the chapel without permission was strictly forbidden.³⁷ The students were sconced for being absent from their rooms during the study period, and for being tardy or absent from class. There was even a monetary penalty for not turning in assignments on time. Most infractions were covered by a sliding scale of fines. To elicit the laughter of the audience while giving a declamation cost the unlucky speaker sixteen cents, while insubordination in the classroom not only drew down the wrath of Asa Messer, but also a bill for four dollars.³⁸

This imposition of fines was but part of a larger scheme in which the college authorities ostensibly perpetuated the close parental supervision of the home. Their lack of confidence in the independent judgments of the students, most of whom were twenty years of age or older, is more than implied in the following description:

Persons generally enter a college young and comparatively inexperienced. In the choice of books, in the direction of their studies, in their attention to diet and exercise, in the selection of companions, in their judgment of mankind, and in the formation of their social and moral habits, how much assistance might be given by one whose experience has instructed him on these points, and whose affectionate solicitude for the welfare of his pupils would call forth all his abilities and all his experiences in their behalf.³⁹

A devoted father could do no more. That Asa Messer as "surrogate father" did not question this philosophy is evident from his correspondence with worried parents.⁴⁰

In a student body of poor country boys, fines were at least a nuisance to be avoided, but in some cases stiffer measures were needed to heel in the wayward. For the chronic but not hopeless offender, the faculty resorted to rustication, a practice then in general use. John Quincy Adams supposedly advised a student:

³⁷ *Laws of Brown University*, 1803, p. 7.

³⁸ Asa Messer to Simeon Daggett, May 19, 1819, Brown University—President, Letterbooks, 1811-1836, MS in BUA; also see Bronson, *History of Brown*, pp. 184-186.

³⁹ *Alumnus Brunensis*, *Letter to . . . Brown University*, p. 9; such an opinion was widespread among college educators at the time. For a general description of the paternalistic attitude towards the students, see Frederick Rudolph, *The American College and University* (New York, 1962), pp. 86-109.

⁴⁰ E.g., see Asa Messer to Reverend William Rogers, April 13, 1816, Brown University—President, Letterbooks, 1811-1826, MS in BUA.

Take then this friendly exhortation,
The next offense is *rustication*.⁴¹

This punishment was all the term literally implied. The president, as a last resort, sent the obstinate culprit to a country parsonage, where, under the benign and watchful supervision of a parish minister and the generally salutary influence of a rural setting, the student was tutored in his courses and supposedly given additional parental guidance to help him curb his less constructive impulses. If the boy had not responded to the more diffuse guidance of the faculty, then a more intensive treatment of the same thing might turn the trick.⁴² Messer came to rely on several country divines for regular assistance. One of these, Reverend Jacob Ide, took such "hardened cases" as Amos Binney, one of the outhouse burners.⁴³

As a student, Mann showed little inclination to question the validity of such procedures. After a classmate had been rusticated, his reaction was simply one of hope that the general atmosphere at college would improve and that "with good fortune and strict adherence to 'steady old habits,' " he hoped to avoid the same treatment.⁴⁴

The popularity of rustication as a means of discipline cannot be explained solely in terms of the expected salutary influence of rural seclusion. Clearly, from the faculty's point of view, whether admitted officially or not, life could be a good deal more peaceful on the campus with the removal of key troublemakers. From the students' point of view, also, rustication was no mean penalty. As class spirit was high at Brown, to be declared *persona non grata* and banished to the hills, was something to be avoided, if at all possible. It was this fear of being forced to leave the happy peers which put teeth into the punishment.⁴⁵ Notwithstanding this imminent ostracism, the numerous announcements of rustication in Asa Messer's letterbook are impressive testimony that the problem of poor discipline was caused by factors too central to the overall scheme of education at Brown to be resolved by an occasional eviction.

How often this punishment was invoked was largely up to President Messer, who served as the chief disciplinary officer of the college. His sagacity in handling boys could mean the difference between an apparently docile student

⁴¹ B. H. Hall, *A Collection of College Words and Customs* (New York, 1859), p. 398.

⁴² Bronson, *History of Brown*, pp. 183-184.

⁴³ Asa Messer to Amos Binney, Esq. December 18, 1817, Brown University—President, Letterbooks, 1811-1836, MS in BUA.

⁴⁴ Horace Mann to Mrs. Thomas Mann, March 24, 1817, Mann Papers, MHS.

⁴⁵ For vivid descriptions of this sense of isolation after leaving college, see James Stuart Holmes to Horace Mann, October 6, and November 14, 1819; David Torrey to Horace Mann, January 20, 1820, and Jarius S. Keith to Horace Mann, December 5, 1819, all in the Mann Papers, MHS.

body and one that was on the edge of rebellion. With the plethora of pica-yune rules available, it was possible to convict a student at almost every turn, and it was Messer's responsibility to decide when it was in the interest of the college and the student to overlook a misdemeanor. Common sense dictated that he would deal one way with a boy of sixteen and another way with a young man of twenty-five. Mann's late return to Brown at the end of the winter vacation was brushed aside,⁴⁶ while his act of forcibly entering the chapel was recognized by a token fine.⁴⁷

Messer had a reputation for being a shrewd disciplinarian. Rarely erring in his judgment of young men and quick to distinguish between transient weaknesses and incorrigibility, he was referred to as "the cunning president." To the weak he was known to be indulgent, but the perverse he treated with "unsparring severity." In matters of policy he steered a pragmatic course and was never the victim of an unoperative abstract theory. Yet he was not considered a great president by his colleagues or his students. Teaching in an age which prized elegance, he was "altogether unpoetical," his language having "no coloring of fancy; . . . was naked, plain and strong." In addition he was not a stately man and his physical appearance invited caricature.⁴⁸

If discipline was one acknowledged avenue through which the old-time college president reached his students, another was his course in moral philosophy, usually reserved for the senior year. Such men as Eliphalet Nott, Jasper Adams, Francis Wayland, and Mark Hopkins instructed countless students in the arts of dealing with political and economic problems in terms of some over-arching system of morality. These presidents brought into the classroom a set of common metaphysical and religious assumptions from which they built a prospectus of practical ethics and morality which was to be equally applicable in the legislature and the marketplace. While each man gave the course his own personal stamp, all proceeded from the premise of the existence of an omnipotent and omniscient creator and prime mover in a harmonious universe. Both the physical and the moral world were subject to his fixed and immutable laws. As Wayland succinctly explained it in his widely used text,

Moral Philosophy, as well as any other science, proceeds upon the supposition of the

⁴⁶ Horace Mann to Mrs. Thomas Mann, March 24, 1817, Mann Papers, MHS. According to the rules he should have been fined 25 cents per night while absent. *Laws of Brown University, 1803*, p. 7.

⁴⁷ Ira Moore Barton to Mary Mann, December 4, 1863, Mann Papers, MHS.

⁴⁸ The quotations are from Barnas Sears, "Historical Discourse," *Celebration of the One Hundredth Anniversary of the Founding of Brown University* (Providence, 1865), pp. 44-46; for another favorable account of Messer, see *Brown University under the Presidency of Asa Messer, S.T.D., LL.D.*; for critical comment see Francis Wayland, *A Memoir of the Life and Labors of the Rev. Adoniram Judson, D.D.* (Boston, 1853), I, p. 15; for a most abusive account of Messer see the diary of Lincoln Fairfield, *New York Mirror*, IV, June 30, 1827, pp. 385-386.

existence of a moral cause, the Creator of all things who has made everything as it is, and who has subjected all things to the relations which they sustain. And hence, as all relations, whether moral or physical, are the result of His enactment, an order of sequence once discovered in morals, is just as invariable as an order of sequence in physics.⁴⁹

The combination of an impressive man presenting a religious rationale to an audience starved for lectures on contemporary topics was the occasion for shaping the opinions of many impressionable young men. It was through this class, more than anything else that presidents such as Wayland and Hopkins created and maintained their Olympian reputations.⁵⁰

Even though Mann's later ideas on reform started with metaphysical and religious suppositions similar to those of the moral philosophers, especially his unquestioning belief in universal and immutable moral principles, he did not receive these by sitting at the feet of some venerable sage at Brown whose teachings provided the formula for understanding and guiding future events. Asa Messer was not only unique in some of his methods of handling boys and in his limited literary accomplishments, but also in that he did not teach the course which was to be the capstone in the arch of a college education. His instruction was mainly devoted to natural science and mathematics.⁵¹

While Mann attended Brown, Jasper Adams was a member of the faculty. Adams, whose book *Moral Philosophy* was later to be used in numerous classrooms in the antebellum colleges, also could claim little influence on Mann's metaphysics. He was still a tutor during Mann's senior year, and at the time taught natural philosophy, i.e. science, and mathematics. Calvin Park, the professor who did teach the course in moral philosophy, was a far cry from the stature and influence of a Hopkins or Wayland. In place of inspirational and provocative lectures, his classes were devoted to recitations from texts, probably Paley's *Principles of Moral and Political Philosophy*.⁵²

⁴⁹ Francis Wayland, *The Elements of Moral Science* (Boston, 1862), p. 25.

⁵⁰ For a general discussion of the college president as moral philosopher, see George P. Schmidt, *The Old Time College President* (New York, 1930), especially pp. 79-89; also Wilson Smith, *Professors and Public Ethics* (Ithaca, 1956), pp. 1-43.

⁵¹ Hovey, *Barnas Sears*, pp. 13-14. If anything, Messer taught the opposite of a system by which concrete answers could be given to moral problems, insisting instead on the necessity of further inquiry. Sidney Williams wrote to Caroline and Charlotte Messer, January 1, 1830, "To your father I am indebted for some of the most valuable parts of my education. During his mental guardianship, I imbibed many of those liberal principles, and acquired those habits of free inquiry in relation to religion and morality, which are the constant source of my happiness here, and of the hopes of my happiness hereafter." Letter owned by Mr. Sidney Messer Williams of Wellesley, Massachusetts.

⁵² That Park's influence on his students was something less than awe-inspiring can be seen in James S. Holmes to Horace Mann, April 29, 1820, Mann Papers, MHS; of Park, Lincoln Fairfield wrote with characteristic venom, "The Rev. Calvin Backgate is the professor of belles-lettres and metaphysics; but he professes merely. Ol Blair, Campbell, Stuart, Reid!

Understandably, "Alumnus Brunensis" considered the absence of lectures in moral philosophy a serious omission at Brown and recommended their inauguration. "Such a course of lectures," he predicted, "would especially have one good effect. It would tend to narrow the distance between the instructor and the instructed."⁵³ This recommendation was followed, but not until after Mann had graduated.⁵⁴ Thus in Mann's day there was no awe-inspiring oracle who could stimulate, inspire, and prepare him for his mission in life. He came too early to listen to Wayland. Textbook recitations had to suffice. If he was silent about this phase of his college education, a phase which seemed to dominate the memories of alumni of other colleges from this period, it was simply because this was missing in his education. He did not have the kind of teacher who was later canonized by a generation of devoted students. The Olympic rostrum and at least one end of the log had been vacant.

A BOOTLEGGED EDUCATION

The significant influences on Mann at Brown must be found in other aspects of college life. Fortunately, a vibrant intellectual life did exist, even if much of it was located outside the classroom. Like its competitors, Brown attempted to maintain a reputation for training orators. During Mann's time, this was given added impetus through the talents of Tristam Burges and the generosity of Nicholas Brown.⁵⁵ As Professor of Oratory and Belles Lettres, Burges taught hundreds of young men in the art of speaking. Dozens of declamations were delivered by fledgling speakers from the college chapel pulpit each week, sometimes as many as thirty in one day. All these were heard and criticized by Burges, who insisted that the orator learned to speak by speaking, and argued that one could teach elocution by theory about as effectively as one could teach anatomy by the same method.⁵⁶ Such a radical idea must have come as a breath of fresh air to the students who were trapped in a learning process which was largely rote memorization.

There is no direct evidence of Burges' influence on Mann. The two men

and thou immortal Locke, and thou Lord Kaines! arise ye in spectral group, peep through the stygian darkness of Backgate's soul, and cry aloud in your agony." *New York Mirror*, IV, June 30, 1827, p. 386.

⁵³ Alumnus Brunensis, *Letter to . . . Brown University*, p. 9.

⁵⁴ Theodore Crane, "Francis Wayland and Brown University, 1796-1841," I, p. 236.

⁵⁵ For references to Brown's early attainments in rhetoric and elocution, see Romeo Elton, *The Literary Remains of the Rev. Jonathan Maxcy with a Memoir of His Life* (New York, 1844), pp. 14-16; Nicholas Brown's donation of \$5,000 which earned him the right to rename the college was used to endow the Professorship of Oratory and Belles Lettres. See Crane, "Francis Wayland," I, pp. 221-222.

⁵⁶ Tristam Burges to the Corporation of Brown University, November 19, 1826, quoted in Bronson, *History of Brown*, pp. 168-169.

were at opposite poles politically.⁵⁷ Mann later said that his speeches at college were bold and radical. If this was the case, it did not prevent him from winning a prominent role in the annual class exhibitions, which were the major social events of the year. The juniors, in cooperation with the sophomores, held two annually in April and August, while the seniors demonstrated their forensic powers to the world each December. These productions, held in the Old Town House in Providence, called forth elaborate preparations with a minimum of finances. Curtains were hung in front of the pulpit to conceal the nervous waiting performers. By ones and twos the young men mounted the podium and delivered poems, debates, and speeches, both serious and humorous. The near community and the not-so-near countryside took interest and genuine satisfaction in these affairs as "the youthful orators, who have since edified churches and charmed senates and courts, trembling like aspen leaves, and blushing like young maidens," gave evidences of their erudition.⁵⁸

To the performers, the size of the audience could be as important as the actual program. There was always the tension right up to "curtain time" for fear that the proceeds from tickets would not equal the cost of production. That the composition of the audience was even more important to the young men can be seen from Mann's account of one of these exhibitions which had the misfortune of being scheduled during a New England storm.

It was but *half* an exhibition, a whole one consists not only of the students in the College, but the ladies in town, the first displaying talents, learning & etc. and the last their dress, beauty & etc. And if I should tell you which was doubtless most disappointing, you would pretend not to believe me. At any rate, I think it may be called *a feast without the trimmings*.⁵⁹

As a sophomore, Mann was chosen to recite "A Poem." In not the most original manner, he showed the seasons of the year to be analogous to a man's life, but if his illustrations were hackneyed, his sentiments were appropriately pious.⁶⁰ By his junior year, he was given a prominent place in the exhibition. In an original speech, he discussed the "American Navy." What ensued was the epitome of chest-thumping chauvinism, with the lack of his-

⁵⁷ For Burges' political loyalties, see Henry L. Bowen, *Memoirs of Tristam Burges* (Providence, 1835), p. 52. For an expression of Mann's bitter hatred of the Federalists, see Horace Mann to Lydia Mann, February 15, 1822, Mann Papers, MHS. In 1825, Burges ran against Samuel Eddy for Congress and defeated him, no small feat considering Eddy's tenure in office. Mann was a staunch supporter of Eddy.

⁵⁸ N.A. "Exhibitions in the Old Town House," in *Memories of Brown*, pp. 35-37; there was wide latitude of topics used. At the junior-sophomore exhibition in 1803, a debate was held on the question: "Ought those who are old Bachelors by choice support those, who are old Maids from necessity?" See "Exhibition in College Chapel, . . . Order of Exercises," April 20, 1803, in Brown University—Programs of Junior and Senior Exhibitions, Exercises, 1798-1881, BUA.

⁵⁹ Horace Mann to [Lydia Mann], April 23, [1817], Mann Papers, MHS.

⁶⁰ MS dated April 18, 1817, Mann Papers, MHS.

torical accuracy more than compensated for by an abundance of star-spangled prose. According to him, the free people of America had created a powerful force which had not only won a great victory over the "African Pirates," but also had started the imminent demise of the British monarchy through the War of 1812. This conflict had been a clear case of enlightenment versus decadence with the outcome foreordained. By the time Mann warmed up to his climax, all factual accuracy was thrown to the wind, and in a nationalistic gasconade, he concluded:

These achievements of the gallant living and the illustrious dead have opened to our country another sphere of preeminence. Our infant armies had before repelled the invading legions of Britain and her hirelings; our Statesmen had before concentrated the wisdom of ages, in framing a government, wise harmonious, dispensing individual happiness and securing national honor; our artists before had converted into utility the raging fury of hostile elements; our Franklins before had curbed the thunders of Heaven; but the lightnings of our naval artillery have now light [sic] up the funeral pyre of British supremacy, and America now yields the trident of Neptune.⁶¹

Here was the incipient orator and reformer. To his approving audience he had demonstrated his potential talents and indicated he would be another alumnus of Brown to carry on the tradition of oratory. In later years the accomplishments of Mann and other alumni prompted observers to call this "the golden age of forensic oratory for Rhode Island." Practical training was available at Brown and it had produced results. Mann would join the growing stream of clergymen, missionaries, lawyers, and legislators, who could lead and persuade by the spoken word.⁶²

There was a more vibrant intellectual activity at Brown even farther removed from the classroom. Formal training in public speaking could claim only part of the credit for producing long lists of noted speakers who manned the pulpits, the bench, and the bar. The work of Burges was reinforced fortuitously by a phase of college life that was strictly extracurricular—the literary and debating societies. In the fifty years following the Revolution these had emerged as one of the strongest influences in the life of the student. At Brown, two organizations, the Philerermenians and the United Brothers, carried on a sharp rivalry analogous to that of a two party system. The Philerermenians originated in the late 1700's and were ardently Federalist. Their counterpart, the United Brothers, formed in 1806 for the purpose of expounding and advancing the virtues of Jeffersonianism. Fed by an increased interest

⁶¹ Mann's name appears on the "Program for Junior and Sophomore Exhibitions, August 19, 1818," BUA; MS for this speech is dated August 9, 1818, Mann Papers, MHS.

⁶² For a general description of the "golden age of oratory" see Charles Evans Hughes, "Historical Address," *The Sesquicentennial of Brown University, 1764-1914* (Providence, 1915), pp. 174-177. Hughes attributed this to the work of Burges and the activities of the literary societies.

in politics in the young nation, these organizations evolved elaborate programs of speaking and *disputatum*.⁶³

On February 22, 1817, Horace Mann was elected to membership in the United Brothers Society and a month later, he signed the original constitution of this organization. The preamble of this curious document began with the words, "Social intercourse is highly valuable, both, as it respects our happiness, and improvement in life." It proceeded to say that,

By this intercourse, the mind is striped [sic] of those barbarous notions, which are fostered by the solitary, and is adorned with such as can give dignity to the character of man. . . . [It] enlarges the mind, improves the understanding and prepares it for the noble employment of investigating the truths of nature. The researches of an individual, however close his application, or superior his powers of mind, must be very confined without the interchange of ideas derived from social intercourse.⁶⁴

More specifically, the constitution provided for standard parliamentary procedures. A president, vice-president, lecturer, secretary, treasurer, and first and second librarians were the elected officers. Regular bi-weekly meetings were held on Saturday afternoons. Membership was limited and available only upon invitation.⁶⁵

The heart of the organization was its debating activity. An elected committee presented questions which were argued by six members, three pro and three con, whose names were taken from the club roster in alphabetical order. During the year, members were given equal numbers of affirmative and negative positions. The debates could be lively affairs and the discussions that followed even more so. All members were entitled to comment on the arguments presented before one team was judged the winner. Three months after joining, Mann was on the firing line, arguing that it was expedient for the republic to establish military schools. His team won.⁶⁶ Four months later he argued, at least with effectiveness if not with total conviction, that the profession of law was not more conducive to the acquisition of general knowledge than the profession of divinity. Again he was on the winning side.⁶⁷

The minutes record that he was elected to the post of second librarian, the lowest position in the hierarchy of officers.⁶⁸ Later they state, "Voted to compromise with Mr. Mann for his room as a society room during the present quarter, for two dollars and fifty cents."⁶⁹ As Mann's finances were never

⁶³ For an excellent general description of the college debating societies, see Sheldon, *College Student Life*, pp. 126-137; for a description of the activities at Brown, see Bronson, *History of Brown*, pp. 181-182.

⁶⁴ Records of the United Brothers Society, Vol. I, MS in BUA.

⁶⁵ *Ibid.*, *passim*.

⁶⁶ *Ibid.*, June 27, 1817.

⁶⁷ *Ibid.*, October 11, 1817.

⁶⁸ *Ibid.*, May 3, 1817.

⁶⁹ *Ibid.*, June 21, 1817.

abundant, he was "compromised" and room #30 became the society headquarters for the next term. Mann was quickly active on committees, including those which received new books, selected new topics for debates, and proposed new members. By the end of his first year of membership, he was elected secretary to the group and from November 29, 1817, he kept the minutes of the United Brothers with a neat and fairly ornate hand. The following year he moved to the top of the hierarchy, being elected vice-president and finally president.⁷⁰

The work of the committees and officers was subject to review by the entire membership, who were ready to assert the authority of the majority when deemed necessary. A proposal, "Would a union of the two parties which exist in the United States, and which are known by the name of Federal and Republican, at present be justified?" was thrown out by a committee of the whole, only to be reinstated a week later.⁷¹ One can also assume that the group's verdict on any debate was, to a degree, as dependent upon the position one was called to defend, as on the merits of the arguments presented. In Mann's junior year, three unfortunate debaters were assigned the task of arguing that a monarchical form of government was preferable to a republican form. Of this debate, the minutes state the decision of the group was "unanimously in the negative."⁷² A year later, the proposition, "Have the Protestants of Europe a right to combine and destroy the Inquisition?" was discussed with Mann taking the affirmative side. Ira Barton, Mann's replacement as secretary reported, "After an interesting and able debate, the Question was decided in the affirmative by a respectable majority."⁷³ Perhaps Mann's enviable record as a college debater was due at least in part to fortuitous assignments.

The highest honor from the brethren was to be chosen as their official lecturer. Mann received this award at the end of his junior year and was given six months to prepare for the performance.⁷⁴ His presentation offers some indication of what was considered praiseworthy by him as well as the rest of the membership. Appropriate to the occasion, Mann spoke on the role of eloquence in a republic, a subject that must have been dear to all of those assembled. Running down a list of renowned speakers, he described the contributions their eloquence had made to civilization. Thanks to his flatulent prose and personal convictions, a lack of germane ideas and factual content must have been largely overlooked by the audience. He did not deal with the actual ideas of the great orators, and only vaguely referred to the causal

⁷⁰ *Ibid.*, August 13, and November 7, 1818.

⁷¹ *Ibid.*, April 4 and 11, 1818.

⁷² *Ibid.*, June 20, 1818.

⁷³ *Ibid.*, June 1819.

⁷⁴ *Ibid.*, August 13, 1818.

relation between their spoken word and the actual deeds and beliefs of men. But to the listeners the speech was a decided success. The minutes of the society carry the following terse report: "A motion was then made to hear and a committee sent to wait upon Mr. Mann to deliver a lecture, he appeared and acquitted himself with honor." And perhaps so, if his presentation was judged solely as a demonstration of oratory rather than a careful analysis of a specific topic.⁷⁵

The climax of the society's activities was its annual anniversary program usually held during the week of commencement. In terms of finances, this was a most expensive and elaborate undertaking. Use of the First Baptist Meeting House was procured and when the day of commemoration arrived, members, friends, and alumni congregated in the college chapel, formed ranks and marched down into town.⁷⁶ The temptation to surpass their former celebrations as well as those of the rival Philemenians was always present. In Mann's senior year a committee was appointed to "secure the Taunton Band provided the expense won't exceed \$30.00." Other committees hired constables and a bell ringer.⁷⁷ Speakers on such occasions were hopefully the more illustrious alumni of the society. First and second orators were invited, as were disputants and poets. Acceptance, however, did not automatically follow the dispatch of a formal invitation. In his junior year, the invitations to the first and second orators were turned down and Mann hurriedly wrote to Josiah J. Fiske of Wrentham, asking him to serve as one of the substitutes. Things were even worse the following year when the first orator, the two disputants, and the poet all declined their invitations.⁷⁸

In one way or another, the show did go on. Fortunately the "Taunton Band of Music" was amenable to a fee of thirty dollars, and the substitute speaker, Joseph Joselin, Esq., was equal to his assignment of filling the breach. With a sigh of relief, the group's secretary, admittedly not the most objective of reporters, recorded that Joselin's performance "was distinguished by no less graceful and eloquent elocution, than for strength of reasoning, fervid imagination, patriotik [sic] sentiments." The poet of the day was also in good form. "To this succeeded a poem by Rev. Daniel Huntington in which he displayed sentiments of exalted morality and fervent piety." Whether anything of genuine significance was said, was not recorded. But by their standards, the day was apparently a success and with a mixture of pride and relief

⁷⁵ The exact date of Mann's presentation is not clear. On his MS, "Lecture Delivered before the U. Brothers Society," he recorded it as given March 10, 1819, Mann Papers, MHS. In the Records of the U. B. Society, Vol. I, it is listed as having been given on March 13, 1819.

⁷⁶ Bronson, *History of Brown*, p. 181, states the Philemenians and the United Brothers used the Congregational Church on Benevolent Street. Newspaper accounts and the U. B. Records from this period state that United Brothers used the Baptist Meeting House.

⁷⁷ Records of the U. B. Society, Vol. I, August 21, 1819.

⁷⁸ *Ibid.*, May 14, 1818 and May 29, 1819.

the members again formed ranks behind the Taunton band and paraded back to the campus.⁷⁹

While their celebrations were colorful and newsworthy, of far greater educational significance were the libraries accumulated by the United Brothers and the Philermenians. At a time when the college library was loaded down with books of sermons and theological treatises, these libraries contained more current material. The United Brothers collection included novels, poetry, travelogues, history, and classical authors, besides the ever present works on religion. Alphabetically the books ran from *Abbess*, a novel by W. H. Ireland in three volumes, to *Zimmerman on Solitude*, a one-volume work.⁸⁰ Books were deemed precious and the maintenance of the library was a constant concern of the Brothers. Many of the motions passed in the meetings were aimed at preventing loss and damage of their books. Mann served on a committee which tried to determine the ways in which books were lost.⁸¹ Almost as important as debating itself was the transfer of responsibility of the collection from one librarian to the next, always done under the careful scrutiny of an *ad hoc* auditing committee. The catalogue of 1821 indicates the group's holdings exceeded 1400 volumes.⁸² In the same year, the Philermenians claimed a collection of 1594 volumes.⁸³ Thus the combined holdings of the two societies almost equaled the total college library. These collections continued to grow until each society had more than three thousand volumes by 1840.⁸⁴ Yet in Mann's time, while the members were assessing themselves to increase their libraries, "Alumnus Brunensis" had to plead with the trustees of Brown to do the same for the college library.⁸⁵

These societies, while achieving some of the aims of a liberal education more effectively than the classroom, were treated largely with indifference by the college authorities. Thus the organizations worked under several handicaps. On numerous occasions, their bankruptcy seemed imminent. Repeatedly, the minutes contained the following type of motion: "Voted secretary [sic] be empowered to draw from the treasury for a partial payment of Wm. Wilkinson which is to include all the money now in the treasury."⁸⁶ Moreover, they lacked the mere physical arrangements necessary for their activities. At the same meeting that Mann was elected to membership, a committee was

⁷⁹ *Ibid.*, August 31, 1819.

⁸⁰ Catalogue of the Books in the Library of the United Brothers Society. Together with the Names of its Members (Brown University, 1821).

⁸¹ Records of the U. B. Society, Vol. I, June 14, August 8, and September 29, 1817.

⁸² The copy of the catalogue in the BUA is mutilated and this number is an estimate.

⁸³ Bronson, *History of Brown*, p. 180.

⁸⁴ William Howe Tolman, *History of Higher Education in Rhode Island* (Washington, D.C., 1894), p. 198.

⁸⁵ Alumnus Brunensis, *Letter to . . . Brown University*, p. 11.

⁸⁶ Records of the U. B. Society, Vol. I, March 28, 1819.

appointed to study the possibility of getting a permanent meeting room. Four months later, they were "compromising" with Mann, suggesting that nothing came of their efforts. Such an expedient was resorted to in the ensuing years until the faculty finally recognized their needs and provided them library and meeting room space.⁸⁷

Left to their own resources, students such as Horace Mann developed the debating society into a highly effective organization. Both the regular curriculum and teaching methods fell far short of developing the students' individual talents. Conversely, within the debating society the members studied a wide latitude of topics and pursued their interests where they would, irrespective of any time honored college textbook. As their attention generally focused on matters of politics, the societies served to introduce these young men to problems of public responsibility. This came at the very time when there was a recognizable uneasiness about the types of leadership emerging as the right of suffrage was extended. The gulf between the classroom and public life was considerable, but these societies expedited the transition for Mann's generation of college graduates.

Coincident with this means of increasing interest in political affairs was the experience the student received in public speaking. A meager press, few amusements, and the high prices of books all had encouraged the development of sermons and political speeches as more indigenous forms of communication for the people. For many, ability to use the spoken word would be the key to success. More than a chance to learn the mechanics of public speaking, the societies provided the opportunity to learn the art of argument and debate and the rules of parliamentary procedure. Even in the selection of officers, the societies contributed to the political education of the young nation. Running for office in the societies was carried on through sundry maneuvers and with varying success. Assisted by the rapid turnover of officeholders, electioneering was almost a continual part of the program. Students had ample opportunity to evaluate the potential strengths and weaknesses of their peers and see the interdependency between rules and the men who administered them. Mann's career in the United Brothers and later political success indicates he learned his lessons well.

Ironically, it was only after faculties began to acknowledge their debt to these organizations, that others began to point out certain inherent weaknesses. Learning how to think and speak on one's feet to the great issues of the day was not an unmixed blessing. To "think on one's feet" could be only the partial means of dealing with complex problems; the greater part of hard thinking should have preceded this. To think on one's feet was to

⁸⁷ For examples of the members' concern for proper facilities, see *ibid.*, March 4, October 4 and 18, 1817.

defend rather than avoid mistakes, to construct a plausible argument rather than a workable solution. Sophistry and euphony pre-empted careful research and analysis as the means of settling issues. Moreover, the parliamentary procedures and speeches were only mock democratic practice and lacked a crucial element, i.e. the responsibility for the consequences which necessarily follow a decision. In debating it was more important to win than to establish truth or embark on action.⁸⁸

In this limitation, the students were the victims of the system. As active and relevant as the societies were, they still were extracurricular even in their fullest development. Had they been built on a solid curricular foundation, they might have been the fitting counterpart to more serious study and provided the opportunity for the students to develop their individual talents and interests. In the final analysis, debating, aside from the intense interest of the students, was similar to writing compositions. Perhaps the most far reaching flaw here was that the students neither realized the dimensions of the problems they were dealing with, nor understood the manner in which they might be approached. Mann won his debate on the value of military schools, but his essay on the same topic shows he was painfully unaware both of the complexity of the topic and how one might begin to analyze it. After graduation he might understand the shortcomings of his education as the means for helping him understand and alter the world. Summing up his disenchantment with Brown after returning to Maine, one of Mann's classmates wrote, "So far as I can ascertain, I have never had so much as a peep at the genitals of originality, and cannot tell therefore with what instruments *ideas* are begotten withall."⁸⁹ Some of the class saw this quickly and some never saw it at all.

COMMENCEMENT

If Mann had misgivings about the requirements at Brown, he left no written record of them. On the contrary, it would appear that he not only complied with the faculty's standards, but set for himself the goal of leading his class. How well he succeeded is illustrated by several events in the last half of his senior year. December was the traditional month for the senior exhibitions, and Mann won the honor of giving the major oration, the first of four speeches he delivered before leaving Brown. For this occasion he chose the Congress of Vienna as his topic. The result was a scathing attack on its leading figures and their political maneuvers. But here again, as in his earlier essay

⁸⁸ *Brown under Messer*, pp. 18-19, has some favorable comments about the debating societies. For a searching criticism of their value, see Charles Astor Bristed, *Five Years in an English University* (Third Edition revised by the author, New York, 1873), pp. 461-475.

⁸⁹ James S. Holmes to Horace Mann, April 7, 1821, Mann Papers, MHS.

on the same topic, Mann failed to identify a single individual by name. He pictured European governments at their old tricks and consequently moving a little farther down the road toward total decadence and chaos. "Centuries of Papal despotism and civil tyranny" had caused innumerable human beings to sink into the "abyss of ignorance and turpitude," only to be followed by thousands more who were sacrificed to "The Corsican Moloch." Mann, the collegiate warhawk, was too late to fight on Lake Erie or at New Orleans with fire and gunpowder. Whether the pen was mightier than the sword seemed an irrelevant question at the time. More important was that it was the only handy means available to his generation.⁹⁰

His next laurels were to lecture before the United Brothers where he "acquitted himself with honor." The panegyric was both an explanation and an illustration of how the speaker supposedly served a republican nation. He also won the honor of giving the oration at the senior final examination dinner in July. Mann chose this opportunity to present his ideas on the social responsibilities incumbent upon educated men. Once again, with florid prose, he pledged himself and his classmates to further the welfare of mankind.

Most ages had achieved greatness through military conquests which left misery, not happiness in their wake. His generation's contribution would be conquest through science. "The empire of reason has begun to be established," he claimed. And with this, the spirit of liberty would also advance. Unfortunately the pagan, the sceptic, the fanatic, and the bigot still held sway in many parts of the world, but educated men, he insisted, would yet annihilate these sources of suffering and servitude. In a ringing climax which exhibited more imagination than humility, Mann threw out a challenge and a promise to his classmates:

But why do we tarry? The hour of preparation is passed. The morning of action comes. . . . We go to welcome new and untried scenes.—Come, arise, *let us be men*. The world is our theatre, let the world be our audience. Hark to the strains, that usher in this day. They sound like 'the music of the spheres.' 'tis the choral melody of seraph-tongued spirits, that chant the eternal union of *genius* and *glory*.⁹¹ Minerva would finally win over Mars for the loyalties of men. The millenium was at hand.

Only the actual commencement ceremonies could climax such a performance, and on the first day of September, the Class of 1819 joined the ranks

⁹⁰ Horace Mann, "The Congress of Vienna," December 30, 1818, Mann Papers, MHS; Program for this exhibition is in the BUA. That Mann's preparation for these speeches was not all intellectual can be seen from the following bill from Christopher Spencer, a Providence Tailor, dated [March?] 5, 1819: 3 1/4 yards of broad clothe @ \$6.00. Making coat \$5.25. Trimming, \$2.75. Making pantaloons \$2.25. The total of \$29.75 was no small figure when compared with the cost of an entire year at college. Mann Papers, MHS.

⁹¹ Horace Mann, "Oration. Delivered at the Final Examination Dinner of the Senior Class, July 19, 1819," Mann Papers, MHS.

of educated men and received recognition for their attendance at Brown. Endless hours of recitations, dozens of poorly cooked meals, constant financial worries, and enforced study periods, all savored and made palatable by the fellowship of youth, were now at an end. For many a farm boy, this was the ritual which signified the transition from homespun to parchment.

Friends, relatives, and alumni gathered on the campus. The faculty prepared to take their places and the graduates and undergraduates suppressed their inclinations for mischief and were ready to play their part in the traditional pomp and ceremony of the day. The procession formed behind a "select band of music" and made its way to the First Baptist Meeting House.⁹² When all were seated, President Messer opened the exercises with a long and elevated invocation.⁹³ What followed was a series of presentations by the graduates in which they spoke on the search for truth expressed in a curious mixture of European rationalism and American Evangelical Protestantism.

The audience heard speeches on "The Decline of Infidelity," "The Value and Immutability of Truth," and "The Influence of Curiosity." Reversing an earlier essay of Mann, that eloquence was essential to freedom, one of his classmates now spoke on "Freedom Essential to Eloquence." Ira Barton discussed "Philosophy, the Only Permanent Basis of Political Institutions," while Mann's closest competitor for top honors of the day, George Fisher, gave the salutatory on the "Origin and Effects of Modern Scepticism."⁹⁴

At the halfway point, the program was adjourned for lunch. The afternoon brought more declamations, a poem, and a debate. All of this finally out of the way, the moment for the awarding of the diplomas was at hand. One by one the young men, proud and self-conscious, stepped to the rostrum to receive their recognition. Only one thing now remained, the presentation of the valedictory, and Horace Mann, A.B., Brown University, Class of 1819, was ready to show why he had been awarded the top honor of his class. His bitterness for the back breaking work on the farm, the anxiety over sickness and financial crises, and the frenetic last minute preparation for Brown seemed part of the remote past as all eyes now centered on the young man from Franklin who stepped to the place of honor and spoke to them on "The Gradual Advancement of the Human Species in Dignity and Happiness."⁹⁵

⁹² *Providence Gazette*, September 4, 1819.

⁹³ The following is a sample of Messer's convocation rhetoric: he pleaded that the graduates would become "most eminently useful and respectable; and having washed their robes and made them white in the blood of the Lamb, may they be fitted for the crown which fadeth not away. . ." Brown University—President, Letterbooks, 1811-1836, MS in BUA. By this time of the school year the harried tutors were probably willing to concede that nothing short of an act of God would make these scoundrels take their place in society.

⁹⁴ "Program for the Commencement, 1819," BUA. For Mann's competition with George Fisher see Ira Barton to Mary Mann, December 4, 1863, Mann Papers, MHS.

⁹⁵ Horace Mann, "The Gradual Advancement of the Human Species in Dignity and Happiness," September 1, 1819, Mann Papers, MHS.

In his college career Mann had written and spoken of many things. Now was the time for his *Weltanschauung*, a belief that man was involved in a gradual process of advancement and improvement. Contrary to sceptical philosophers, Mann insisted people would continue to rise on the scale of moral and intellectual accomplishment—war, famine, and superstition notwithstanding. He claimed that science had “amassed invention upon invention and crowned discovery with discovery, until it . . . scaled the very Olympus of science and brought down the fire of truth from heaven.” It now remained for the philanthropist to make the supreme achievement, the eradication of the very sources of evil and the complete renovation of human nature.

Science had now joined with philanthropy, he told his audience. The nature of the mind was now understood, and this knowledge could be used to condition and redirect men’s lives toward happiness. Now men finally would know how to live in complete harmony with universal, physical, and moral laws.

Indeed, if the displays of Infinite Wisdom and beneficence ever make their appeal to our very senses; it is in that natural government of the world which is increasingly maturing both the vast and minuter results of human agency into one grand and harmonious scheme, that insures the constant development of truth, to reform, to cheer, and humanize the world.

No corner of the globe could escape the forward march of this enlightenment.

Yet is she to dart her vivifying glance into the recesses of Oriental darkness and liberate the sons of Brama, from their ancient inheritance of bondage. Yet, is she to stretch for the sceptre and smite the Mosque and the Pagoda, as she did the convent and the Vatican.

In conclusion, he gave lip service to President Messer for his “fostering care and parental beneficence” and to the professors and tutors for inculcating the idea that intellectual endeavors must be based on a solid moral foundation. They had given the class principles which would be guides for the future. As to his classmates, Mann appealed to their sense of brotherhood. They must face the future pledged to eternal friendship.

The program concluded with a prayer and appropriate music. The valedictorian and his classmates now were dispatched officially to enter the society of men and employ the lessons they had learned both in and out of the classrooms. It was a day of achievements and contradictions. They had survived the countless recitations, compositions, and declamations, all justified as essential to giving them a liberal education. Yet this had not freed them nor shown them how to seek the truth systematically. Reacting to this poverty of

the curriculum, they had, in their own way created an auxiliary program—not always with total success—but surely vital, resourceful, and conducive to a sense of maturity and social responsibility. Although they were adults, they lived under a faculty which took its responsibility to serve *in loco parentis* to the point of absurdity. Yet if the picayune restrictions and evangelical admonitions failed to effect a positive change of values and attitudes, living with their peers, creating their own social standards had given them a sense of exclusiveness and *elan* which was an effective initiation into the ranks of college alumni.

The weaknesses and strengths of their education were not apparent at the moment. More exhilarating were thoughts of the future. They had come to think of themselves as the new leaders of a chosen generation whose foreordained triumph over ignorance, poverty, and greed seemed just beyond their outstretched grasp. This was the important lesson Horace Mann had learned at Brown. For him, the three years had not been only an intellectual experience but also a socializing process. Where the classroom and the rule book had failed, the debating society and dormitory had, almost inadvertently, succeeded.

The author accuses sociologists of indifference toward educational problems, examines the cult of objectivity, and urges his colleagues to join normative to empirical inquiry.

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The Responsibility of the Sociologist to Education*

The sociologist, by necessity, shatters the world we know. He breaks it into little pieces, in order to study each carefully, for this is the only way he can cope with a complex and dynamic society.

This, Francis points out, leads to an important question: "Who puts it back together? Or is the world like Humpty-Dumpty, who, having been broken by his great fall, can never be put together again?" (2)

Sociologists give no uniform answer to the question, but their actions, their research and writing, indicate a general attitude: if anyone is to put the world back together, it is not they.

As a result, education, guidance, counseling and other human arts¹ suffer from sociological malnutrition. Today elements of sociological knowledge have only incidental impact on education, for the educator is interested in whole, complex, dynamic human beings living in whole, complex, dynamic

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¹ In this paper, "educator" is used broadly, to include all human artists, such as counselors, teachers, social workers, guidance workers, and other professionals who work toward the development or adjustment of youth and adults. The arguments in this paper, of course, apply to all, but the use of a single term will avoid confusion.

worlds. Of such human beings and such worlds the sociologist today says little.

But silence does not always cloak incompetence; ignorance is not a constant mistress to indifference. Certainly many sociologists have little to say that could interest the educator or be of use to education. Others, this paper suggests, are equipped to actively help education meet its pressing problems of ends and means.

But potential is not action, and (with a few exceptions) sociologists ignore the implications that their work carries for education—indeed, the values popular in their profession punish those who do not ignore. A few sociologists are willing to turn to educational research in spite of the punishment; others now and then make swift and transitory journeys to educational realms; most keep well away.⁷

The sociologist's attitude, then, is a major problem—perhaps *the* major problem—in the current relationship of education and sociology. At the heart of the problem lies this question: Is there any imperative that *requires* the sociologist to take active interest in education, an imperative that can cancel the paralyzing influence of the bias so popular today among sociologists against research in education, an imperative to stimulate and continue to stimulate active sociological interest in education? Here is the major question of this paper. But first we consider the potential.⁸

Many sociologists are equipped to turn penetrating attention to the educator's problems. From one perspective, sociology can focus *within* education, examining educational theory, practice, and processes. With such a focus, sociology performs much as does educational psychology and this approach is labeled "educational sociology." From another perspective, sociology can focus *on* education and attempt to understand educators, schools, and other educational institutions in their social and cultural contexts. This "sociology of education" is concerned with the relationship between education and society.

In brutally simple terms, sociology from the one perspective might ask education, "What can I do to serve you?" From the other perspective it might ask, "What, in the name of society, *are* you, and what in the world are you doing?" In equally brutal terms, all but a few sociologists are indifferent to the one question; they ignore the other.

⁷ Throughout this paper, when I speak of "sociologists," I except a few who have actively and systematically studied educational problems, such as Neal Gross, Jean Floud, James Coleman, and perhaps a score of others. I also except the occasional work on education of more general sociologists, such as Parsons, Riesman, Lazarsfeld, and Waller. The essential point is: too few give more than occasional attention to education; the accumulation of work is paltry compared to the problems involved in contemporary education.

⁸ Because the discussion of potentials is only a preliminary to the main topic of this essay, it is both brief and general. For a discussion of some specific potentials to one aspect of education, see Hansen (E).

INDIFFERENCE: SOME POTENTIALS HALF-MET

Sociology, Gross points out, offers the educator a bag of intellectual tools: "insights and concepts that will allow him to take account in his decision-making organizational, cultural, and interpersonal factors at work in his environment" (4, p. 287).

But the tools have to be modified to meet the needs of educators, for of all the problems sociologists attack with their concepts and insights, few—disturbingly few—are problems of education.

Not only the individual educator suffers; the sociologist's indifference is costly to the entire process, institution and practice of education, for a most basic concern of education is the socialization of the young in contemporary society—a concern which barely touches psychology and philosophy, but lies at the heart of sociology.

As a human art, education tends to develop a theory of practice, an *applied science* of behavior. This means it depends on sociology to help identify the guideposts for development of its practical theory—for if an applied science is to be valid, it must find accord with the verified knowledge of the theoretical. In Fromm's words:

While some arts demand only common-sense knowledge, others, such as the art of engineering or medicine, require an extensive body of theoretical knowledge. If I want to build a railroad track, for instance, I must build it according to certain principles of physics. *In all arts a system of objectively valid norms constitutes the theory of practice (applied science) based on the theoretical science.* While there may be different ways of achieving excellent results in any art, norms are by no means arbitrary, their violation is penalized by poor results or even by complete failure to accomplish the desired end (3, p. 17).

In developing its applied science the art of education even today depends on the efforts of the sociologist. Whether or not he intends to, the sociologist generates both information and principles of great value to the human artist: information to allow greater insight into practices, processes and individual lives; principles to stimulate and support an applied science.

But few sociologists are active in this intercourse; the rest do not deny that their findings and theories may be pertinent and important to education, but they refuse to pursue the implications or even to announce their findings in such a way that the pertinence is evident. They publish findings and pursue their relevance for research problems and developing theories in sociology, but their relevance for education or any other endeavor that smacks of social action is ignored. It takes an imaginative explorer to discover that within the material deposited in sociological journals is a gem of value.

Some educators and a handful of sociologists who dare show an interest in

education discover some of the gems, but other incisive findings are certainly missed and implications are so well hidden that they remain undetected. Education thus suffers from the indifference of sociologists.

It's as simple as this: education, as an applied science, can be effective only if it is addressed to reality. Sociologists can offer objective statements about the reality of contemporary society, about socialization processes and problems, about the stress of social life on individual development. But sociologists are indifferent to education; they leave their statements half-buried in forests of methodology and theory and hidden by jungle-thick leaves of specialized journals.

And it's as simple as this: the educator, as a human artist, is faced with daily decisions that demand use of every intellectual tool available. He has mastered some sociological tools, but he has done so with little help from the sociologist. He has recognized the potential usefulness of some other tools, but also that the tools must be modified or used with some unspecified care, modifications and care that the sociologist could instruct him in, warn him about.

But few sociologists bother. They create tools, they publish reports—but they give little help, few warnings, few suggestions, to the educator. They are indifferent.

SILENCE: OTHER POTENTIALS IGNORED

Perhaps the greatest contribution sociology might make to education and society—and one of the greatest it might make to sociological theory itself—is the analysis of education in contemporary mass society.

But this potential is generally ignored. Too few professional sociologists, Floud and Halsey suggest, have paid systematic attention to education, "so that the new problems raised by the development of industrialism have gone unnoticed or unexplored for their theoretical and practical implications" (1, p. 296). It is especially important, but unfortunately rare, that the relation of education to social change be perceived in its full complexity, that education be seen as sometimes a cause, sometimes a condition, and sometimes a consequence of widespread changes in society.

It is especially important now to understand the relation of education and society, for in today's complex and threatened society, pressures and criticisms bear on education from all directions. The charges that it is increasingly a servant of the status quo or that it is helping to direct society to the *Rise of the Meritocracy* or a *Brave New World* are easily and glibly made—but they should not be so easily and glibly rejected. Neither educator nor critic has adequately considered the problem and there is little pressure on them to do so; on such questions they are allowed to react emotionally, dulling

their intellect and crippling their imagination. Their listeners and readers demand no more than bromides.

But much more is needed. The educator needs to ask—and answer as fully as possible: Are pressures building in society that will move the individual toward loss of rational freedom? What in society strengthens the individual against such pressure? What in the individual leaves him vulnerable to this stress, what inner strength and potential does he have to resist? And how does education contribute to the tension between individual and society, what ends is education serving, what trends is it furthering, what kinds of man and society is it encouraging?

Such questions (and these are but a few of the many crucial ones) are difficult, and the knowledge necessary to an understanding is beyond the efforts of an isolated individual. He must find aid—not in making decisions, but in gaining background ideas and information—from the most imaginative minds available, minds that are ever alert and productive of the new, and at the same time richly capable of placing this new in full perspective. Men who have these abilities are to be found in a number (not a large number, unfortunately) of professions today. They are not altogether uncommon in sociology.

In such men the skills and powers of the social scientist may be combined with the vision of the humanist. Through such men, sociology can contribute to education by placing facts and ideas in social perspective. Today, the potential is ignored by all but a few men; the rest see, they know, they suspect. But they are silent.

REASONS FOR SILENCE AND INDIFFERENCE

The silence and indifference of sociologists today comes partly from fear—fear that they will mislead.

The fear is not unfounded. Gross (4) warns that sociological research findings may be overgeneralized; that unverified opinions or pronouncements may be accepted as verified; that findings may be accepted without critical examination of assumptions, methods, and conclusions.

But these dangers can be avoided through careful work by both sociologist and educator. There is no inherent danger in offering a statement of probability. Educators do not expect categorical commandments for action; they know the world well enough to know they must, in most cases, operate on "chance." Unfortunately, many sociologists don't credit the educator with such perception and can (as Gross does) point to some telling cases of uncritical interpretation by educators. There is need for the sociologist to tell exactly what his findings imply and do not, evidence and do not, validate

and do not; and there is need for the educator to work more carefully with sociological reports. This need can be filled; it only requires care and effort.

For a starter, educators must convince the sociologist that he need not limit himself to statements of invariance, that the educator will understand him when he says that one thing is more probable than another, that if certain action is taken, certain results will probably follow.

Operating on "chance" is not strange to man—the uneducated as well as the educated base most of their actions on probabilities. Nor is the idea of probabilities strange to the human arts—in working with human beings the educator can only be sensitive to possibilities and proceed on the basis of probabilities. Nor is the scientist's *tentativeness* strange to educators; they, too, hold many of their ideas in the wind, ready to throw one possibility aside when a more probable one is found.

The sociologist, then, can actively seek and offer ideas and suggestions to increase man's perception of the chances he must take in daily life, of the courses available and the probable consequences. Today such use is made of the sociologist's information; but it is an inefficient use, and the sociologist is passive. By refusing to interpret his ideas into practical probabilities, he allows a stranger to "translate" his works. Make no mistake: they lose much in translation.

The idea that the sociologist can point out possible courses and probable consequences is not new and not strongly contested today. But even such activity is not enough. *The sociologist must also urge educators to take certain action.* When his empirical investigation has borne fruit, he must consciously move into the world of values, from questions of "what is and what might be," to questions of "what should be." He must actively help establish the laws of normative theory to underly the human arts. Fromm suggests that the human arts can actively use the empirical theory that the social scientist constructs in his pursuit of knowledge. He could have added that the sociologist, too, can become active. He can turn his skills and perspectives to establishing imperatives to action. He can apply, to the probabilities his research yields, the vision of his profession and generate suggestions and recommendations for social action. He cannot make the educator's final decisions, but he can analyze problems, evaluate possible choices, urge certain decisions. His contribution comes not from any unique capacity for morality—he is no more nor less an authority than other men on what is good and what is evil—but from his capacity to anticipate the multiple and far-reaching consequences of proposed action.

Education could profit greatly, then, if the sociologist decided to move beyond empirical knowledge to normative theory, from what *is* to what *should be*. The sociologist is especially well prepared for such a move—but

the unfortunate truth is, he chooses not to move. Indeed, he forces his colleagues to make a choice: "Either stay pure and pursue only knowledge, or leave our ranks and become yourself a human artist." Few persons have the ability and strength to brave this ultimatum; few exercise their full potential by first seeking knowledge and then trying to understand what this knowledge says about human life and goals and action.

Why does the social scientist take this stand against action? Partly, it is a matter of frightened virginity: he thinks questions of "should" might distort evidence about "what is." It is debatable whether his position is well-taken, but the scientist will not leave it willingly. He must be convinced that he should become active, that he should seek normative theory and that he should contribute to education. He must, in short, be convinced of the importance of wedding knowledge and action, a wedding match to which he, by tradition, objects—in spite of whispers that he might even be best man.

A number of efforts have been made to convince him. All ask one question: Why *should* the social scientist contribute to social action?

WHY THE SCIENTIST SHOULD ACTIVELY CONTRIBUTE: THE FAILURE OF METHODOLOGICAL ARGUMENTS

Karl Popper ably represents one attempt to move from empirical investigation to social action. The essence of his argument is that social action is necessary if we are fully to verify empirical propositions. Scientific objectivity, he points out, is not a matter of the individual's efforts to prune his approach of value commitments or presuppositions. It is "a product of the social or public character of scientific method; and the individual scientist's impartiality is, so far as it exists, not the source but rather the result of the socially or institutionally organized objectivity of science" (11, p. 220).

If Popper is right, the sociologist is incapable of gaining objectivity single-handedly; it can be gained only by the collective and critical efforts of many. But objectivity is not an automatic result of collective effort; bias can be, and often is, shared and encouraged by an entire generation of thinkers, as was harshly evidenced by social scientists in Hitler's Germany. How, then, can an "institutionally organized objectivity" be gained?

"The only course open to the social sciences," Popper writes, "is . . . to tackle the practical problems of our time with the help of the theoretical methods . . . of trial and error, of inventing hypotheses which can be practically tested, and of submitting them to practical tests" (11, p. 222).

In short, Popper argues that to develop objective theory and research

sociologists must test their ideas with "piecemeal social engineering" (11, p. 222).

This argument appears to meet our need for an imperative to social action that will make the sociologist an active participant in the effort of education. In fact it meets the need in part, but only in part.

The crucial point is, Popper does not require the sociologist to take part in developing normative theory (and it is this theory which would underlie the educator's "applied science"); throughout his discussion Popper is committed to "knowledge."⁴ But normative theory, generally speaking, is committed to social change or persistence, i.e., to social action.

Popper's argument is obviously an important one, however. It does demand that the social scientist keep at least one eye on reality. But it does not create a demand for social action; it urges only manipulation of society in order to gain knowledge. Society, then, serves knowledge. But social action would require that knowledge serve society and man. Popper holds knowledge as the final end; a social action approach holds man and society. Popper fails to move from empirical theory to a *demand* for normative theory and for social action.

Other efforts to move from the human arts to a demand for empirically-derived normative theory fall into the same error. Guidance, social work, and education in general are based on some idea of "potentialities" of human development and behavior. This, in essence, is a type of prediction, a proposition that man is "becoming" and that his becoming can be facilitated or frustrated by the human arts.⁵

But even if such a position is accepted by the empirical scientist, it *requires* no commitment to social action. The empirical sociologist can attempt to estimate potential (which is, after all, an empirical question), but feel no pressure to work for the conditions which would help bring about the full flowering of the potential. Indeed, he might be as interested in cutting off Liza Doolittle's nose as in giving her speech lessons. From such a position, the sociologist could disregard the world, except for verification of his propositions.

A related argument to the above two carries more force. Assuming the

⁴ Normative theory is concerned with what "should" be, based on available information and insight about what actually "is." The social scientist can generate normative theory only by introducing value assumptions into his empirical pursuit. See the latter sections in this paper. Empirical theory refers to statements of observed regularities. The end of empirical theory is facts, the end of normative theory is value imperatives.

⁵ See the works of Eric Fromm and Gordon Allport for eloquent statements of such a position. This idea also runs through contemporary liberal theology, as represented by Paul Tillich. Such a position is also consistent with the general sociological theory underlying this paper, and with the existentialism which is touched on in the next section.

social scientist is committed to pursuit of knowledge, he probably (though not necessarily) also desires conditions that speed the pursuit.⁶ If he discovers that society is drifting toward a situation in which, for example, choice of research topics is regulated, he would then be committed to resist the drift. By this means the assumptions basic to science seem to generate a demand for social action.

This argument is weak in the same place as Popper's; the social action it demands is dedicated only to pursuit of knowledge. If he is consistent with this position (i.e., if he allows no other assumptions or value commitments) the sociologist doesn't care what happens to the rest of society so long as he is free to pursue "truth." He wouldn't care if humanity went to hell, so long as he could watch and weigh. This position, too, does not require the social scientist to act for the social good nor to contribute to the practical science of the human arts.

It must be clear that commitment to social action cannot be generated from empirical methodology. Assumptions are necessary, value commitments must be made.

WHY THE SOCIAL SCIENTIST SHOULD ACTIVELY CONTRIBUTE: A VALUE ARGUMENT

If it is important that the sociologist engage both in empirical research and in social action, it is even more important that empirical research not be compromised; we must seek an approach to action that supports and encourages the needs of empirical research.

The difficulty is, social action and empirical research require different value commitments. Our question, then, is: can we identify assumptions which are adequate to empirical research and which at the same time generate an imperative to action?⁷

We might assume, for instance, that God desires scientists to work for righteousness as well as seek knowledge. Or we might assume that the ideal state requires a corps of "active scientists." Both assumptions, however, are questionable and violate the needs of empirical science. We need assumptions which are both cogent and plausible, yet generate both empirical research and social action.

The general theories of human behavior shared by William James, John Dewey, George Herbert Mead, Max Weber, C. Wright Mills, and many

⁶ It should be recognized that this position, too, rests on certain assumptions not necessary to empirical research.

⁷ We must be extremely careful not to compromise research at any time, for unless we have an accurate picture of what is, and what is potential, we neither have immediate truth nor can we arrive at legitimate imperatives.

others (and which we here combine under the label, "interactional theory," implying that society is built from the social actions of individuals) are highly pertinent to empirical research. We suggest that—by appealing either to godly or humanistic sanctions—they also can be developed to generate imperatives to social action.

Interactional theory stresses the independent activity of man; it emphasizes his potential for autonomy and self-determination.⁸ It states that if individual man desires—no matter how minor his role in society—he can in great part determine his own life and in so doing help determine what his society will be. Not that it is easy to act independently. It is more difficult the more uniform the social agreement on meanings and goals and the less flexible these meanings and goals become. And it is increasingly difficult the more decisions on meanings and goals are centered in the hands of a few.

But the important point is, interactional theory emphasizes that individual man is not merely a product of society, a reactor to social pressures. Even in strict and highly organized communities, man has some capacity for independent action—indeed, social organization is stable only so long as most choose to suspend their individual choice. Society is thus not a formless power that forces individuals to surrender independent will or desire. Individuals may be forced—but they are forced by the actions and inactions of the individual members of their society. It may be one man, or a group of men, in positions of power who actively decide to coerce or entice an individual or group—to punish a murderer, to burn a witch, to encourage black-marketing—but just as significantly, every other individual chooses to ignore or approve of the active decision.

Each individual, then, is involved in choosing the relation of the collective to the individual; each is involved, actively or passively, in the decisions made in the name of the community. Each, in other words, is involved in the choice not only of what he himself is and is becoming, but also of what his society is, is becoming, and is doing to its members. That is, every individual is causally responsible for himself, other men, and society.

Interactional theory also holds that individuals can be educated (in schools and out) to exercise their will or to suspend their choice. If the social critics such as Mills (10), Whyte (13), and Huxley (8) are correct in their warnings

⁸ With Reuben Hill (6) the writer has attempted to identify the basic assumptions of the general interactional approach:

1. Social conduct is most immediately a function of the social milieu.
2. A human being is an independent actor, as well as a reactor to his situation.
3. The basic autonomous unit is the acting individual in a social setting. (Emergence of reality from component parts is not an issue; i.e., the theory is forced neither to claim nor reject the idea that "the whole is more than the sum of its parts.")

These assumptions, interestingly, are compatible with (among other philosophies) the existentialist's assumptions about the nature of man.

that rational freedom is being threatened in modern mass society, then sociologists and educators, as well as others, may be causally responsible for the loss of their own freedom and that of their children. But even such responsibility carries no imperative to act. Interactional theory is objective and attempts to be non-normative: "causal responsibility" only says that one thing was a consequence of another.⁹

But this essay asks why the sociologist *should* act: the question is normative and it seeks to establish a demand for action. The question will plague us until we face this fact: an empirical theory cannot make the jump from *can* to *should*. Empirical and normative realms remain distinct, separated by a gulf that formal argument cannot diminish.

But a bridge can be erected, founded on the value assumption that man has a *duty to act* on his values and knowledge. Such an assumption is carried today in the philosophy, literature, and theology of writers such as Jaspers, Sartre, Camus, Tillich, and Buber, men who seek answers to their urgent questions of existence in the assumptions that man is aware and man is responsible—not just causally responsible, but responsible in the sense that he has a *duty to create a self and a society consistent with that which is best in him*.¹⁰

But it may be felt that we stray far afield when we ally an existential assumption with those of interactional sociologists.¹¹ Actually, the union is

⁹ The assertion of causal responsibility seems to say little. But note: if it holds, then free will is relative only to physical and psychological limits.

¹⁰ The concept "responsibility" has three meanings pertinent to the present argument: (1) causal responsibility: man's actions have consequences; (2) existential responsibility: because his actions have consequences which create his own and other's essences (i.e., define himself and others), he has a duty to act in the present and future in some certain ways or toward some consciously held goals (e.g., to actualize the potentials of self and hence of society); (3) moral responsibility: man is morally involved in the consequences of his actions, and he can be judged (on the sanction of something supraindividual, e.g., the state, God, humanity) for what he has already done and for the effects of what he has done. The third meaning of the word does not enter the above discussion, but the reader should be aware of the distinction between it and existential responsibility, which is crucial to the present argument.

It should be remembered that throughout this essay I speak generally of both existential and interactional theories. Existential writers, of course, are not all equally committed to such a concept of "existential responsibility." The concept is most actively addressed by Sartre, but the idea of duty lies close to the surface of Heidegger's writings and is highly pertinent to the discussions of Marcel and Jaspers (for instance, in their use of the concepts of "inauthenticity"). Indeed, it can be argued that even Kierkegaard, who showed little desire that man be socially involved, seems implicitly to assume some such idea of responsibility in his basic effort to confront man with his existant possibilities.

¹¹ Since this essay was submitted for publication, Tiraykian's intriguing discussion *Sociologism and Existentialism* (12) reached New Zealand. Tiraykian traces the similarity of Durkheim's theory to those of existential philosophers and in a final chapter suggests the relevance of existentialism for the theories of Talcott Parsons. Tiraykian, however, does not address himself to Parsons' functionalism, but rather to his basic "theory of action." This basic theory is quite consistent with the statements I have made about interactional theory (indeed, both are traced directly to the work of Max Weber), but the relevance of existential philosophy to functional theories is questionable.

natural, for the two movements sprang from similar roots and focus on the same general problem—the relation of man to society. (In fact, though other elements of the existential argument are not necessary to our current discussion, it is interesting to note that the above sketch of interactional theory applies as well to the general existential position.)

The union of "existential responsibility" with interactional theory, then, links the sociologist's empirical efforts with normative. Where interactional theory stops with causal responsibility, the concept of "existential responsibility" holds man to a duty to act in the present and future toward conscious goals. Man creates his own and his society's essence, and he has a duty to act in such a way that these are created consistently with what he recognizes as most profoundly valuable.¹² He is thus forced to face the crucial normative problems of the day; he is forced to work toward understanding the changes that are taking place in himself, around him, in his society; he is forced to evaluate this change, and to act for or against it.

The assumptions necessary to bridge the gap separating knowledge and action, then, are offered in the parallel nature of interactional sociology and existentialism.¹³ Empirical theory need not suffer. It must still be the sociologist's major concern (for without knowledge, man may act responsibly and yet destructively); yet parallel to this search for knowledge is the effort to identify guide-posts to action.

The assumption that man is existentially responsible seems easily made; it is consistent with interactional theory; it poses no necessary dangers to empirical pursuits. But the assumption is no small one, for it is an assumption of duty; once made, it involves man in the world, deeply and passionately.

We assume that man is rational and that man is responsible. Man must seek knowledge; but he is responsible for the effects of that knowledge. If he is responsible, he cannot be a mere machine. If he is responsible, he is more than a technician. He is a god who chooses and thinks, decides and acts. If he chooses not to act—either openly or by making the one great choice not to

¹² Just what values the sociologist who accepts an existential responsibility will move toward need not concern us at the moment: the present question is whether he should get into motion.

¹³ Many variations on the basic existential theme have developed; similarly, there are variations of interactional sociology. The two basic themes, however, are quite similar in statements about the relation of man and society. But they are not identical: indeed, some writers claim they contrast in conception about man's capacity to act independently of his social environment. Existentialism they claim focuses on the subjectivity of the relationship, while the sociological stance is essentially objective. These representations of sociology, though generally valid, do not quite hold for interactional analysis, in which the importance of subjective reality is often emphasized, both in theory and in the search for objective correlates of subjective experience.

choose—he is responsible for the consequences, responsible for ignoring a duty to himself and his society.¹⁴ This "choice not to choose" is often made by the sociologist, and the responsibility is thrown off with the statement, "I am contributing to social action, just by my 'dispassionate' analysis. For only in that way can man *know*." Such a position is in itself based on ignorance. It ignores the distinction between knowing and understanding; it ignores Mannheim's demonstration that lack of interest does not lead to recognition of the truth (9); and, perhaps most destructively, it distorts the ideal of "scientific objectivity" to make social science appear a spineless amoralist. Fromm, again, argues well:

Objectivity requires not only seeing the object as it is but also seeing oneself as one is, i.e., being aware of the particular constellation in which one finds oneself as an observer related to the object of observation. . . . But objectivity is not, as it is often implied in a false idea of "scientific" objectivity, synonymous with detachment, with absence of interest and care. . . . How could the aim of inquiry be formulated except by reference to the interests of man? *Objectivity does not mean detachment, it means respect*; that is, the ability not to distort and to falsify things, persons, and oneself. . . . The idea that lack of interest is a condition for recognizing the truth is fallacious (3, p. 105-06).

The responsibility of the sociologist is certainly met in part by his search for objective facts and empirical theory. Indeed, to confine himself solely to research aimed at social action would endanger his search, his science, and eventually, his society. Development of factual theory requires many projects with little immediate relevance; without facts and understanding, action is at best ineffectual and at worst destructive.

But in insulating himself from practical problems, in insisting on his detachment, in pursuing a false image of objectivity, the sociologist is in danger of allowing the power he creates to be delivered into the hands of men who not only hold different values, but who are often less able than he to evaluate his findings. Malice may not enter; the man who picks up the maverick findings may not be evil. But he may be one of Huxley's apes (7).

¹⁴ This idea is poignantly presented by Huxley (7, pp. 39-40). In a movie script, armies of apes, each with an Einstein for a mascot, destroy each other with bombs and gas:

"Narrator: . . . We dissolve again to the scene of the picnic.

"The baboons are all dead. Horribly disfigured by burns, the two Einsteins lie side by side under what remains of a flowering apple tree . . .

"First Einstein: It's unjust, it isn't right . . .

"Second Einstein: We, who never did any harm to anybody . . .

"First Einstein: We, who lived only for Truth.

"Narrator: And that precisely is why you are dying in the murderous service of baboons. Pascal explained it all more than three hundred years ago. 'We make an idol of truth; for truth without charity is not God, but his image and idol, which we must neither love nor worship.' You lived for the worship of an idol. But, in the last analysis, the name of every idol is Moloch. So here you are, my friends, here you are."

If the scientist turns his back on education and other social action, he is in great danger of becoming an unquestioning technician, a tool of whatever power dominates. But there is one difference between such a scientist and other tools: because the scientist is human, he cannot avoid responsibility. He can act the tool, but he cannot escape his responsibility to act otherwise.

SUMMARY

In the human arts, as elsewhere, pressing questions are being answered today without the benefit of the knowledge and understanding of the sociologist, even though—by virtue of his training and orientation—he could help greatly toward answers.

In the final analysis it is the educator who must alert the sociologist to the importance of problems in education. The sociologist must be convinced that the research opportunities offered by education are among the most pressing, the most crucial today. And he must be convinced that separation of the pursuit and the application of knowledge is both unnecessary to objective research and dangerous to contemporary society.

Efforts to end the division, to generate an imperative to social action, have generally failed. This paper makes one more effort, in joining the concept of existential responsibility with interactional theory.

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In this review article the author essays a comprehensive criticism of a recent study on the education of emotionally disturbed children, and makes a plea for rigor in the conduct and reporting of educational research.

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A Noncontribution to Educational Research*

A vociferous part of the public, beset by political anxiety and stung where it hurts most—in its belief in the superiority of all things American—seems to have declared open season on all educational ventures that are viewed as progressive or concerned with the emotional well-being of the child. So long as these witch hunts are led by admirals whom nobody can expect to understand the radical difference between a class-based educational system (such as the Swiss) and one based on broad democratic principles (such as ours), the educational caravan will move on however loudly the dogs bark, to borrow the simile Freud used to describe the uninterrupted progress of psychoanalysis despite loud carping from the uninformed.

Matters become much more serious when professionals, who ought to know better, jump on the band wagon. It is a sad reflection on the educational climate of today that whoever criticizes progressive education, particularly its concern with the psychological needs of the child, and demands a return to an old-fashioned, "no-nonsense" education, not only finds a ready audience, but is also published in a series claiming scientific respectability.

It was only a question of time before the popularity of looking backward, of proferring antiquated methods for new, would tempt someone to extend

* Norris C. Haring and E. Lakin Phillips, *Educating Emotionally Disturbed Children* (New York: McGraw-Hill Book Company, Inc., 1962). 322 pp. \$6.50. Published in the McGraw-Hill Series in Education.

this approach even to the emotionally disturbed child. Or in the style of the authors, to which I cannot do justice by paraphrasing:

Many will say that the pendulum is swinging again. Before the present era of permissiveness an attitude of harshness and authoritarianism prevailed in education and child rearing. Just how harsh and authoritarian was the past no one can say with scientific authority because study of classroom atmosphere and of child rearing techniques were nonexistent. But whatever swing the pendulum may be displaying, there is clear evidence that much scientific support, as well as sophisticated opinion, is available today to bolster up and give credence to an argument for the firm structuring of the classroom environment as a way to promote effective learning [p. 52].

This reviewer was under the impression that swinging is what the pendulum is doing all the time the clock is working. Or do the authors wish to imply that educational thinking was at a standstill during the last thirty years and is only now active again? Anyway, after having told that the pendulum is once again swinging, the authors confess they are not too sure what type of swing they are talking about. Maybe they are aware that due to efforts such as their own it is now moving backward, a direction they wish to push it toward, without having the courage to say so.

What the authors probably mean when mentioning scientific authority is scientific accuracy, because not even they are likely to claim that all great educational writers of the past from Comenius to Pestalozzi and Dewey were lacking in authority. Thus it seems the authors are not clear what constitutes authority. I shall demonstrate that their notions of accuracy are equally deficient.

Just how harsh and authoritarian were education and child rearing in the past may not be known to those unacquainted with history. But if the history of education is dismissed, the authors are at least willing to rely on "sophisticated opinion." Here again the social commentaries of Samuel Butler and the many others who wrote extensively in the past on the destructive qualities of a firmly structured education, were not sophisticated enough for the authors to be taken seriously, nor such recent indictments as those of George Orwell. What thousands have experienced at first hand has no validity for the authors because "studies of classroom atmosphere were nonexistent." Which raises the interesting question of when is a study a study.

According to the authors, then, the history of education begins only with the introduction of modern scientific statistical methods (which they unfortunately have not mastered, as I shall show below) and nothing can be said about education before their use. As for the clear evidence they claim to possess, their idea of clarity may be demonstrated by the following: "As any educator or psychologist knows, effective learning is important for obvious scho-

lastic reasons" (p. 52). Now, Latin adjectives sound erudite, but sometimes they are troublesome. "Scholastic" means "pertaining to education" or, more briefly, "educational." So if this sentence says anything, it makes the circular statement that it is well known that effective learning is important for obvious learning reasons.

The book abounds in similar statements that say nothing. As if to compensate, statements are often repeated verbatim, as if the authors feel that if their arguments are not convincing, repetition will obfuscate this fact.

So we read on page one that "Emotionally disturbed children are children with more or less serious problems with other people—peers and authority figures such as parents and teachers—or who are unhappy and unable to apply themselves in a manner commensurate with their abilities and interests." Since this book deals with emotionally disturbed children, it is understandable that the authors soon define their terms. But why repeat, fourteen pages later, that "Emotionally disturbed children are defined as those who have more or less serious problems with other people (peers and such authority figures as parents and teachers) or who are unhappy and unable to apply themselves in a manner commensurate with their abilities and interests" (p. 15)? The definition is neither new nor startling. But perhaps the repetition that characterizes this volume is part of the firm structuring they recommend.

To apply to normal children and schoolroom situations such reactionary thinking as the authors propagate has severe consequences. But normal children can and do fight back. The emotionally disturbed child is much more vulnerable. He is by definition a child whose difficulties originate in or are deeply connected with his feelings. To get around this fact the authors advise us to disregard his feelings, which is about as sound advice as to tell a physician he should disregard the symptoms of his patient's illness. Essentially they base their educational methods on the conditioned response experiment. The Russians have indeed won in their cultural infiltration. For what Pavlov developed with dogs the authors suggest we apply to emotionally disturbed children.

The claim is that they were motivated to undertake their study because "evidence is pointing more and more to the value of a structured classroom environment, as against the traditional setting for working with emotionally disturbed children" (p. 52). This was news to your reviewer, since the traditional custodial institutions for emotionally disturbed children are being abolished because these firmly structured settings were utterly destructive to the children, inflicting on these already mentally sick youngsters other severe traumas which resulted in the syndrome called "institutionalism." With the exception of these custodial institutions, the education of the emotionally

disturbed child is only at the very beginning of its development. Short of them there exists no traditional setting for working with emotionally disturbed children.

Those of us who decry the absence of facilities for the education of the emotionally disturbed child will be cheered to learn that "there are many existing resources for emotionally disturbed children" (p. 15). Having daily to tell parents that there simply are no facilities for their severely disturbed children because the few schools that specialize in helping them are always full, I wish the authors had presented evidence for their claims. Since they do not, and since governmental publications uniformly decry the scarcity of such resources, this appears as still another of the claims that they not only do not substantiate but that are contrary to fact. The authors continue: "but none of them stress [sic] education, and none of them attempt [sic] to weld together the educational and social-emotional considerations." In fact, publications of both the United States Children's Bureau and the Child Welfare League enumerate institutions which very much stress education as a core activity of their therapeutic program.¹

Basically, all the authors have done in this book is to grind an axe called "the firmly structured classroom situation," and to slay with it a straw man of their own creation which they call "permissive education." In this permissive education "The social emotional changes were sought in their own right,

¹ Since the authors specifically mention the University of Chicago's Orthogenic School (with which this reviewer is connected), one may wonder if they really believe that one of the nation's graduate schools of education has so lost all interest in education that it conducts an institution, and calls it a school, but fails to stress education. Psychoanalysts, too, will be astonished to learn that in this school "the orthodox psychoanalytic procedures in the treatment are followed" (p. 19). I did not know that there exist any psychoanalytic procedures, orthodox or otherwise, on how to teach children in classrooms.

Still speaking of the Orthogenic School, the authors say that "very little structure is set" (p. 19). But on the next page we read that "no educational plan was too elaborate to follow if it was consistent with the interpretation of the child's need" (p. 20). How elaborate planning can be carried out in a classroom without elaborate structuring is hard to see. But having spent most of my professional life on structuring a very special environment that would further the education and rehabilitation of emotionally disturbed children, I may be oversensitive to hearing I have wasted my efforts since there is no structure to speak of in the Orthogenic School.

Finally, the work of this school is dismissed because "it is not possible to be sure of the gain that these children made" (p. 21). Obviously to write to the school for this information was not considered possible, nor even to scan the literature. Yet in 1955 the school published a five hundred page volume on its children, presenting the achievement of four of its students in detail, and that of all of its students in summary (*Truants from Life*, Glen-coe, Ill.: The Free Press, 1955). The problem has also been described in numerous articles in the scientific journals, before and since.

The authors end their discussion of this school by saying, "Before making any concluding statement about the practicality of this program, one would have to know whether or not these children are now better able to cope with their conflicts in a typical school setting" (p. 21). A hundred have done so. The only way not to have known was by not informing oneself.

without reference to educational progress of the child." So anxious are they to believe this, that they cannot see how the very authorities they quote contradict their assertions. In discussing (unfavorably) the contributions of Fritz Redl, an outstanding proponent of the education of emotionally disturbed children along what they call permissive lines, they list his principles as follows:

1. Learning builds and supports the child's feeling of self worth.
2. Learning can help to satisfy the need for belonging.
3. Learning builds confidence which will in turn increase the drive for further learning (p. 48).

Thus the principles they quote contradict their statement about the permissive educator's disregard of the value of learning as compared to emotional well being.

To cite another of their many unsubstantiated claims:

In a residential center for emotionally disturbed children the ratio of professional and semi-professional personnel to the number of children was about six to one; in the [authors' own experimental] program the ratio was about one professional to eight children, so that this program was about one-fiftieth as expensive [p. 13].²

The authors' experimental group consisted of fifteen children. Two teachers, the school psychologist, the principal, one of the authors, and some other professional people were deeply involved in the program. Hence not two but at least five professionals were involved; and careful reading of various statements about the experiment suggests that probably one or two more persons should have been added to their number. And this not to mention that the nameless center they compare their group with was residential; that is, the children lived there twenty-four hours a day, seven days a week, as compared with their experimental group which was in school only some six hours a day, five days a week. Thus without explaining the difference, thirty weekly hours of child care are equated with one hundred and sixty-eight weekly hours. By comparing the uncomparable, the authors reach conclusions they wish to arrive at.

This brings me to the authors' case for the particular type of classroom education they advocate for emotionally disturbed children. It rests on a comparison of three groups of emotionally disturbed children, fifteen in each group.

² Here as elsewhere throughout this supposedly scholarly treatise, no reference is given to permit checking on what institution they refer to, or where they found their data. I do not know of any institution where the number of professional and semi-professional staff to the number of children is of a ratio as high as six to one.

Before and after tests of academic achievement and behavior were administered to the three groups in the first year of the program. . . . The 'Behavior Rating Scale' (see Appendix C) was developed by the authors to measure change in overt behavior. The *five-point* rating scale consisted of *twenty-seven* items. The judge rated each child *from one to five* on each item of tested behavior [p. 74]. [Italics are the reviewer's.]

In Appendix C, which presents the full text of this rating scale, we are told in the instructions to the raters:

Please read over the following *twenty-six* items to be rated carefully. Rate each item on a *seven point* scale, varying from an extreme negative degree at the left side of the continuum to the highest positive degree at the right. Think of the items as varying from a minus 2 through zero to a plus 4 [p. 303]. [Italics are the reviewer's.]

Thus the instrument itself consists of twenty-six items, not twenty-seven as we are told in the text. And evaluation is made on a seven-point rating scale, not a five-point one as we are told in the text.

So much for the accuracy of the authors' statements on their own evaluation scale on which they base their recommendations on what must be done about education for emotionally disturbed children in particular, and education in general. If these should be printer's errors, how was it that the authors, the consulting editors, the publisher's editors, and the distinguished educator (W. M. Cruickshank) who introduces the book, overlooked them? It does suggest that they consider the book not worthy of careful proofreading, in which opinion this reviewer joins them. Much more serious, however, is the fact that none of these persons questioned the design of the research but accepted it as coming up to standards.

The authors' main argument is directed against what they consider an all too "permissive" attitude in the education of emotionally disturbed children. To this they oppose what they call a very firm and highly structured education. The fifteen children of their experimental Group I were therefore subjected to such a firmly structured education, and were separated into *two special classes*, according to age. One was a primary class, age seven to nine, the other an intermediate class, age nine to eleven.

The fifteen children of Group II were not taught as a group at all but studied in their several regular classrooms in *six different elementary schools* within the same county. Since they were neither taught in any special way, nor as a separate group, they do not interest us here. They are mentioned only for completeness' sake.

The third group, the so-called "permissive group," consisted of fifteen children assigned to a single special class. Yet everyone knows that the smaller the student load per teacher, the better will the academic results be—particu-

larly in a class of emotionally disturbed children. So, to begin by giving Group I two teachers in two school rooms loaded the dice in their favor. As if to make doubly sure that these groups to be compared were not comparable, the children in Group III did not range from seven to eleven as did the children in Group I, but ranged from ten to twelve years. That is, they had already failed, had been feeling defeated for much longer and more consistently than the first group.

The groups are compared on the basis of their performance on the behavior rating scale mentioned before, and in regard to their academic achievement as measured by the California Achievement Test. I shall not discuss what the authors claim they found on the basis of their behavior rating scale, not because they seem unclear on how many items this scale consists of, or on how many points the children should be rated on each item, but because they give no data which would be pertinent to assess validity or reliability of this scale; considerations of validity or reliability do not seem to concern these authors, when engaging in educational research. The ratings on this scale were made by four teachers, serving as judges. We are not told whether each child was rated by several or only one of the judges. If the first should have been the case, one would like to know the degree of agreement between judges; if each child were rated by only one judge, one would like to know how the ratings of the judges compared with each other, that is, whether any judge consistently rated children high or low on certain items when compared with the other three. Also one would like to know whether any or all of the four teachers serving as judges were in any way connected with the teaching of any of the three groups, and if so, how. Since none of this information is given, there seems no point in discussing data derived from this scale.

Things are different in regard to the test by means of which academic achievement was measured. Academic achievement certainly depends to a large degree on innate intelligence and age. So the least one would expect is that the children to be compared be comparable in these respects. But no age distribution or mean age of the children in each group is given. Neither do we learn anything about the children's intelligence scores. Thus it seems possible that there were wide varieties in the intelligence of the children forming the three groups. Unless we know how the groups compare in regard to intelligence, findings on the academic progress of the three groups are meaningless. The academic progress of children of similar intelligence placed in each of the three groups would have to be compared to see how they fared in each one. Since the ages of the children in each group varied, one would like to know how children of the same age and the same intelligence fared in group I when compared, for example, with children of the same age and

intelligence in Groups II and III. No information is given to permit such comparisons. Given the importance of home background, one would have liked to know how the children compared in regard to their socio-economic and cultural background. Again no information is available. We are not even told whether the sex distribution in the three groups was identical. Thus it seems that while no effort was made to make the groups truly comparable in regard to the characteristics most pertinent for the questions under investigation, no analysis of variables was attempted to compensate for this shortcoming.

Irrespective of the nature of the groupings, one might surmise that whatever method Group I was taught by—being much younger, being in classes about half the size of Group III, having known defeat only half as many years—their academic and behavioral progress would be better than in the other two groups. But while this would seem a foregone conclusion to any educator the progress of the so favored Group I over Group III was by no means impressive.

When both groups started out, according to tests then administered the mean academic achievement level of Group I was 2.19; that of Group III was 5.36. After one year, the respective gains of the two groups were 1.97 versus 0.70 (p. 77). Data for the second year are given only for Group I; no such data are given for Groups II and III. But the second year progress of Group I, when the students were one year older and, more important, had started on a higher mean grade level (4.16), was only 1.17 (p. 82). Thus when the students of the experimental group started on a mean grade level of 2.19 their mean achievement for one year was 1.97; but when they started the next year on a mean grade level of 4.16, their mean academic achievement for the year was only 1.17. By the end of the second year they had reached a mean grade level of 5.33, virtually the same level on which Group III originally began (mean grade level 5.36).

Thus the data show that with an increase of about two years in mean starting grade level, the mean progress of the group was reduced by 0.80 of a year's academic achievement (from 1.97 to 1.17). Assuming the same progression (or rather reduction) in rate of yearly gain, if Group I had started out with a mean grade level of 5.33, their mean yearly increase in achievement would have been reduced to less than half the progress of the preceding year; that is, it would have been in the vicinity of 0.77. This would be just about the progress made by Group III, which started out with a mean academic age level of 5.36 and progressed 0.70 during this one year a mean academic level of 6.06.

According to this calculation, had Group I and III started at the same mean grade level, the permissive group would have made as much academic

progress as the highly structured one, though the permissive group was twice as large (or had only half the number of teachers). What a triumph for the permissive philosophy over the highly structured one.

We could also reason from their data that as their experimental group spent one more year in the highly structured classroom the mean progress of the group per year was reduced by 0.80 from that of the preceding year. Since the authors give no data for the third year—though they claim that the group was followed for several more years—we are free to assume that the reduction in progress might have been the same the following year; that is, again 0.80. This would suggest that during the third year when the children of Group I started the year on the same academic level as Group III did initially, Group I's progress would be reduced to a mere 0.37; that is, half the mean progress the permissive group made on the same academic level. So whichever way we look at the authors' data, the permissive group comes through with flying colors.

Which merely indicates that to demonstrate the superiority of one educational system over the other, one has only to give one group twice as many teachers, and start the other on a level from which it is much harder to make academic gains. All that is further needed is to claim that despite these crucial differences the groups are comparable, and your opponent is done for. That is, if the reader does not know what constitutes comparable groups, and cannot read tables.

With what lack of seriousness the authors treat their own statistical data may be illustrated by one example. When comparing the mean achievements of Group I and II the authors state that the mean score difference of 0.95 (in the first year Group I increased its score by 1.97; Group II by 1.02) is significant, which statistically speaking it is (p. 76). But a few pages later, when it suits their purpose to assert the superiority of Group I, they claim that though the mean gain of this group in the second year was only 1.17, that is, 0.80 lower than the year before, this indicates "that the pace of the structured class was not much below that of the first year of the experiment" (p. 82). Thus if it suits the authors a mean difference of 0.95 is so significant as to base on it far reaching recommendations on how our educational system should be reshaped. But at another moment a difference of 0.80, statistically nearly as important as a difference of 0.95, is of no importance whatsoever.

Actually, the groups were even less comparable than I have indicated so far. Only for Group I was there the well known effect which is engendered whenever very special attention is paid to one group, while the others continue in a humdrum existence. Only the teachers of Group I got extra help, advice, and were exposed to the enthusiasm and the goal oriented efforts of the researchers. The teachers of the two other groups were simply let to flounder.

der in any way they could. The authors are so unaware of the research proving the effects of such extraordinary attention paid to only one group that they do not even mention it.

But this is not all. Only for Group I were regular group meetings of parents and teachers instituted, led by one of the authors, and other experts. The authors themselves say, "It is a trite but true statement that work done with parents can be extremely beneficial to a child's welfare" (p. 162). Thus it is perfectly in accord with the authors' own statements to assume that part of the progress they report for their structured Group I is due simply to the work they did with the parents, since no such effort was made for the children of Groups II and III.

They also say of these group meetings: "As a result of the effort illustrated, parent, child, teacher, and other school officials were more or less successfully bound together in working consistently toward commonly shared goals" (p. 195). Starting out with the realization that the difficulties of most emotionally disturbed children originate in the home, it is quite clear that if an important influence is exercised on the home, and if such influence is beneficial, there must have been far reaching consequences on the classroom behavior and educational progress of the child. Only for the first group, the one selected by the authors to demonstrate their method as successful, did such meetings take place. All one can say is that this lends further support to Sir William Osler's famous statement that when schemes are laid in advance, it is surprising how often the circumstances fit in with them.

Throughout this book, the authors have stressed that their contribution consists in the introduction of highly structured classroom teaching in the education of emotionally disturbed children. Since this reviewer cannot think of any educational enterprise that is not highly structured—however varied the structuring—and since the need for structure is all the book claims, a need that none denies, it would be simple to dismiss this volume: one could merely remark that most of what is in it is old; that some of this old stuff is good, most of it trite, and quite a bit of it questionable; that the little that is new is not supported by the authors' own evidence.

Why, then, review it at all and at such length? Because this reviewer feels that it is most important to examine with care what kind of studies are passed off as research in educational psychology. Because the questions ought to be raised: how comes it that research reports are published where data are treated in such high handed fashion and where groups are claimed to be comparable which are not? Much more important, such books pose a serious problem if not in the sociology of knowledge then in that of a profession: how come we do not clean our own house of researchers who do not take research seriously?

By examining the legislative history of the NDEA, the "presumption of constitutionality," and various Supreme Court precedents, the author supports Federal loans to private and parochial schools as being both constitutional and wise public policy. This attack on La Noue's position (HER: Summer 1962) continues the debate on a significant national controversy.

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Loans to Nonprofit Private Schools

THE CONSTITUTIONALITY OF SECTION 305 OF THE NATIONAL DEFENSE EDUCATION ACT*

On September 2, 1958, President Eisenhower signed into law the National Defense Education Act. Many observers consider it to be the most important Federal education legislation to be enacted in this century; it is undoubtedly one of the three or four most significant Federal actions on behalf of education in our entire national history.

The Act was the end result of many months of work and thought by both the Executive Branch and the Congress (work which began long before the opening of the 2nd Session of the 85th Congress and months before the Soviet "Sputnik" alarmed the nation, in the late Fall of 1957, about the state of our technological and educational preparedness). This work was a marvel of bipartisan legislative action, reflecting the general consensus (only reinforced by Sputnik) that the strengthening of educational resources of the Nation was a matter of urgent and fundamental national concern.

The spirit and purpose of the Act is caught in the second paragraph of the

* This article was originally prepared as a memorandum for the National Audio-Visual Association, Inc., but it represents in every detail the author's personal views both as to the law and the public policy.

Report on the Senate bill issued by the Committee on Labor and Public Welfare on August 8, 1958:

In reporting S. 4237 to the Senate, the committee has approved a coordinated program for strengthening the national defense through an *interrelated set of proposals* designed to assist State, local, and *private* effort to develop America's brainpower for defense, by stimulating students, teachers, parents, and school authorities to seek the highest possible attainment in learning. [Emphasis added.]¹

This interrelated set of proposals included specific forms of assistance for all levels of education from primary grades through graduate school. It is notable that the Act, with a few exceptions, provided assistance to both private and public education at all levels, including both loans and grants to private colleges for a variety of programs. At the secondary school level, Title V of the Act authorizes payments to the states for testing students in both public and private schools, with provision for direct Federal financing of private school testing programs in states having no legal authority to conduct them.

The legislative history of this Act does not support the contention that Congress determined to provide appropriate and effective assistance for private education as a mere after-thought or without due consideration. The Act is broad in concept and is directed to those deficiencies in the *whole* of American education found most dangerous to the national security. This memorandum develops that point at some length, as it is essential to a consideration of the validity of Section 305, both as to constitutionality and with respect to public policy.

Title III of the Act deals with one of the several deficiencies Congress found most serious—the widespread inadequacy (or absence) of instruction in mathematics, the physical sciences, and modern foreign languages in elementary and secondary schools. Title III authorizes appropriations for payments to state education agencies for "(A) acquisition of laboratory and other special equipment, including audio-visual materials and equipment and printed materials (*other than textbooks*), suitable for use in providing education in science, mathematics, or modern foreign language, in public elementary or secondary schools, or both, and (B) minor remodeling of laboratory or other space used for such materials or equipment. . . ." [Emphasis added.]²

Title III (Section 305) also authorized the Commissioner of Education to make loans to private, nonprofit elementary and secondary schools for the same purposes as set forth above. Such loans are made for a period not to exceed ten years, and bear interest at a rate determined by adding one-quarter of 1 percent to the average yield on all outstanding marketable obligations

¹ Senate Report No. 2242, 85th Congress, H. Session, p. 1.

² Sec. 303 (a) (1), P.L. 85-864.

of the United States. The loan funds may not be used to purchase textbooks of any description, nor, indeed, any material of a sectarian nature. As of June 30, 1962, there had been approved 207 loans to 214 schools located in 43 States and Territories, in an amount of \$2,708,000. Of the loans approved, approximately 90 per cent have been for secondary schools.

It is this loan program which has been questioned on grounds of constitutionality and of sound public policy. National publicity has been given to the findings and conclusions of a study of parochial school textbooks used by some schools at some grade levels to teach science, mathematics, and languages. The study was conducted by Mr. George R. La Noue at the request of the Department of Religious Liberty of the National Council of Churches of Christ.

Mr. La Noue found that some of the textbooks used by some parochial schools in the subjects eligible for assistance under Section 305 contain religious and sectarian references and that these courses have religious content. It should be noted that no claim was made that any such material was purchased with Federal loan funds. Indeed (as Mr. La Noue unfortunately does not stress in his published articles), no such materials may be purchased with the loan funds.

From this finding Mr. La Noue leaps to the sweeping conclusion that the loan program authorized by Section 305 is an unconstitutional violation of the First Amendment prohibition against Congress making a law respecting an establishment of religion, and, moreover, that such assistance is bad public policy.⁸

The purpose of this article is to examine both of these conclusions in detail. Except as may be necessary to a consideration of the constitutionality of Section 305, no attempt is made to delineate the ultimate constitutional reach of the establishment clause of the First Amendment as applied to Federal education programs. The same restraint must be imposed with respect to the examination of public policy. Such far-reaching issues must be left to the long-range and continuing development afforded by judicial and legislative bodies, and to the American people. The relevant facts are reviewed with every attempt at fairness, and conclusions of law have been reached after a conscientious effort to avoid the toils of advocacy.

THE PURPOSE OF CONGRESS

We live in a curious time; extremely ominous, yet holding luminous promise for mankind. It is a supremely dangerous time for our nation. As nearly as

⁸ See George R. La Noue "Religious Schools and 'Secular' Subjects: An Analysis of the Premises of Title III, Section 305 of the National Defense Education Act," *Harvard Educational Review*, Vol. 32, No. 3 (Summer 1962), pp. 255-91.

we can make such judgment, it appears that scientific and technological advances have brought the world to the point where a free society can be universally realized or wholly extinguished. In this context, the policies of the Government of the United States assume a significance unique in history.

This weight of decision rests in large measure upon the Congress, which must constantly assess our situation and the elements of national strength with which we confront it. The Congress liberally utilizes its power of inquiry and its access to expert opinion to probe even the minute aspects of the problems with which it deals. Despite the fact that its numerous and exhaustive hearings are largely public records, too few citizens appreciate the depth and scope of these deliberations. It is one of the ironies of our political life that the most critical work of the Congress is so little understood. This power of inquiry was brought to bear fully in the consideration of proposals which became the National Defense Education Act of 1958.

The Legislative Basis For the N.D.E.A.

When the impact of "Sputnik" was felt across our land in November of 1957, the Subcommittee on Special Education of the House Committee on Education and Labor, chaired by Representative Carl Elliott of Alabama, had already completed its first round of hearings on educational deficiencies. These hearings had been held at a number of locations around the nation since early August. At the same time, in the Department of Health, Education and Welfare, a special "task force" was completing its work of many months on educational needs, work which had been initiated by Secretary Folsom and Dr. Lawrence G. Derthick, the U. S. Commissioner of Education. Thus the essential basis for the N.D.E.A. had been laid well before "Sputnik."

On January 21, 1958, the Senate Committee on Labor and Public Welfare, under the chairmanship of Senator Hill of Alabama, began its own series of hearings on "Science and Education for National Defense." A few days later, on January 27, President Eisenhower sent a message to the Congress transmitting "Recommendations Relative To Our Educational System," which set forth the general outline for legislation that was to become the National Defense Education Act. The President stated in this message:

Our immediate national security aims—to continue to strengthen our Armed Forces and improve the weapons at their command—can be furthered only by the efforts of individuals whose training is already far advanced. But if we are to maintain our position of leadership, we must see to it that today's young people are prepared to contribute the maximum to our future progress. Because of the growing importance of science and technology, we must necessarily give special, but by no means exclusive, attention to education in science and engineering. . . . National security requires

that prompt action be taken to improve and expand the teaching of science and mathematics.⁴

Simultaneously with the message, the Department of Health, Education and Welfare's draft bill to carry out the President's recommendations was introduced in the House by Representatives Kearns and Frelinghuysen (H.R. 10278, H.R. 10279) and in the Senate by Senator Smith (N.J.) and others (S. 3163). Immediately, somewhat different and expanded versions of these proposals were introduced by Representative Elliott (H.R. 10381) and by Senator Hill and others (S. 3187). The final Act, with certain variations, represented an amalgam of these bills.

It is impossible to summarize briefly the substance of the House and Senate hearings on these proposals, conducted during the Winter and Spring of 1958. The printed House hearings, in 3 volumes, contain 2,096 pages; the bulky single volume of Senate hearings, 1,602 pages; the list of witnesses in each reads like a "Who's Who" of the American scientific and educational community. The theme of the testimony was the constant emphasis upon the close relationship of education to defense, and the necessity of making broad improvements in certain aspects of education.

The Senate committee report contains excerpts characteristic of testimony heard by committees in both Houses:

The bill takes cognizance of the vital relationship between a good educational system and national survival. Witness after witness appearing before the Committee testified to the fact that stronger and better education, especially in the sciences, mathematics, engineering and modern foreign languages, is absolutely essential to an adequate national defense. For example, Dr. Detlev A. Bronk, President of the Rockefeller Institute of Medical Research and President of the National Academy of Sciences, stated:

"We cannot compete with Russia and China . . . in terms of numbers of men and women. Because of that, it is especially important that we have a very high level of education in our country in order to compete against greater numbers with men and women of greater competence. Only this way can we defend our national strength and be effective champions and defendants of the human freedoms on which the whole free world depends."

. . . The following colloquy which took place during the hearings . . . indicates the seriousness with which Dr. Teller views the present situation in education:

'The Chairman: "Doctor, I guess we would agree that our top scientists of the next 5 and 10 years will be young people who are now in college and graduate schools. Would that not be true?"

Dr. Teller: "I am quite sure that in science more than in other fields . . . the

⁴ House of Representatives, 85th Congress, 2nd Session, Document No. 318, pp. 1-2, 4.

children who are now in school will be the ones on whom we will have to depend primarily 10 years from today.

The Chairman: "We should now, at this time, do all we can to encourage and help them to move forward and develop as much as possible. Is that not true?"

Dr. Teller: "That is what we have to do or I think our way of life will not survive."

Dr. Wernher von Braun, one of the world's greatest authorities on rockets and missiles, agreed that proper training and education of scientists at this time, regardless of cost, "is a matter of national survival."

The Chairman of the President's Committee on Scientists and Engineers . . . recently summarized our situation in these words:

"... The rate of Russian progress in most scientific fields is so rapid that, unless we broaden and strengthen our own efforts, there is little question of Soviet superiority 5 or 10 years from now."⁵

The foregoing is from the report of the Senate Committee on Labor and Public Welfare, favorably reporting S. 4237 to the Senate. Section 405 of that bill became, without further amendment, Section 305, "Loans to private, nonprofit schools," of the National Defense Education Act.

Legislative History of Section 305

Neither the original Administration proposals (S. 3163; H.R. 10278, H.R. 10279) nor the bills introduced by Senator Hill and Representative Elliott (S. 3187, H.R. 10381) contained a provision for loans to private, nonprofit schools for the purchase of mathematics, science and modern foreign language instructional equipment. The provision was drafted by the Senate Committee on Labor and Public Welfare and included in the bill it reported to the Senate (S. 4237). It is to be expected that a committee, after lengthy hearings and discussion, would shape its own bill, and this is, in fact, the usual practice (the committee bill is very often given a new number). This is the process followed in the development of the N.D.E.A. The bills reported by committee in each house differed from each other and from the bills that were first under consideration, although the major purposes and the general outline of the legislation remained the same. The fact that a particular provision is initiated in committee does not signify that it has not been carefully considered. Quite the contrary, it means that the Senators or Representatives principally concerned with the legislation are enough impressed by a particular need to draft a new provision to meet that need.

The implication that Section 305 was not a thoughtful and well-considered part of the Act overlooks several essential points:

First: *the design of the entire Act discloses a purpose to carry out remedial*

⁵ 85th Congress, 2nd Session, Senate Report No. 2242. "National Defense Education Act of 1958," pp. 3, 4.

programs for students in both public and private institutions at all levels. Title V provides for a program of aptitude testing of students in public and private secondary schools (to be directly financed by the Federal Government) in any state that is unable to undertake such a program in private schools. Titles V and VI authorize, respectively, institutes for school counsellors and for teachers of modern foreign languages. The institutes, which the Commissioner of Education arranges through contracts with both public and private universities, may be attended by both public and private school teachers. The original administration proposals would have authorized the payment of stipends to private school teachers attending such institutes, but these payments were restricted to public school personnel by the congressional committees.⁶ Nevertheless, tuition-free attendance is a form of assistance. Titles II and IV authorize, respectively, loans to college students and the award of graduate fellowships in both public and private institutions; and title VI authorizes the establishment of language and area centers in both private and public institutions for the study of important languages which are rarely taught in this country, and provides for language fellowships. All of these provisions, in some form, were contained in the bills first before the committees. In the entire NDEA *only* title VIII, which authorizes the establishment of vocational-technical programs, relates exclusively to public institutions, and it is in the form of an amendment to the Vocational Education Act of 1946.⁷ Vocational education has long been recognized as an exclusive concern of public schools, in terms of Federal support.

Second: *there was ample testimony before the Senate committee to justify its action to help private schools purchase adequate equipment for instruction in mathematics, science and modern foreign languages.* Dr. Lawrence G. Derthick, the U. S. Commissioner of Education, for example, testified to this need in general terms that would apply to private as well as public schools:

Since laboratory equipment, particularly in advanced courses, constitutes a major expense, many schools have resorted to non-laboratory methods of teaching. It is not uncommon to find a complete absence of laboratory facilities in the required general science and biology courses, to say nothing of those sciences requiring more complicated and expensive equipment.⁸

Dr. Detlev W. Bronk, President of the National Academy of Sciences, in re-

* This creates an anomalous situation in Federal programs, since the National Science Foundation has been paying stipends for about 7 years to private school teachers attending its summer institutes for science and mathematics teachers.

⁷ Title X authorizes payments to state education agencies to improve their collection of statistics; Title IX establishes a Science Information Service in the National Science Foundation.

⁸ "Science and Education for National Defense," Hearings before the Committee on Labor and Public Welfare, United States Senate, p. 265 (February 7, 1958).

sponse to questions by Senator Kennedy, stressed to the committee the central importance of adequate equipment in the classrooms.⁹ Indeed, the general inadequacy of instructional equipment in our schools, particularly in the fields of science and languages, was often emphasized in the hearings.

Finally: *there was adequate explanation of this section and ample opportunity for the Senate and House to consider its validity, had any member seen fit to question it.* The Senate committee report contained both an explanation of the provision and its full text.¹⁰ A copy of this report, together with a copy of the bill, is customarily placed upon the desk of each Senator in the Senate Chamber prior to debate. Moreover, the report on S. 4237 was available on August 8, several days before debate commenced in the Senate. An opportunity was afforded the full House to consider this provision when it approved the conference report which contained an explanation and the full text of the section.

No conclusion adverse to Section 305 may be drawn from the fact that there was no Senate or House debate concerning it. There was little or no debate concerning several very important (and relatively very expensive) provisions of the Act. A review of the discussion and debate in both houses leads one to conclude that controversy mostly centered upon Federal scholarships. Most of the less controversial aspects of the bills were not debated.¹¹

The Congressional Assessment

While the deliberations and debate in both the House and the Senate could leave no doubt that the Congress as a body considered NDEA a vital defense measure, our attention is focused upon the Senate debate, because the bill before the Senate included the private school loan provision. Many excellent contributions were made to the Senate debate, including statements in support of the legislation by Senator Alexander Smith (senior Republican member of the Committee on Labor and Public Welfare and a co-sponsor of the legislation) and many of his Republican colleagues. It was a bi-partisan effort in every sense. The most comprehensive statements of Congressional purpose were those made on the Senate floor on August 13, 1958, by Senator Hill, the Committee chairman, who said:

Americans are united in our determination to meet this [Soviet scientific] challenge. Americans know that we must give vastly greater support, emphasis, and dedication to basic scientific research, to quality in education, to instruction in the physical sciences, to training in foreign languages, and to developing to the full our intellectual

⁹ *Ibid.*, p. 19.

¹⁰ *Ibid.*, pp. 13, 35.

¹¹ See *Congressional Record*, August 7-22, 1958.

tual, cultural, and scientific resources. Americans know we must mobilize our brain-power in the struggle for survival.

. . . The Constitution solemnly placed upon the Federal Government this responsibility for the national defense, as we call it today, and for the conduct of our foreign affairs.

. . . We had before our Committee on Labor and Public Welfare many witnesses, including distinguished scientists, distinguished educators, and distinguished leaders in American public life. All these witnesses, without exception took cognizance of the vital relationship between a good educational system and national survival.¹²

Senator Lyndon B. Johnson, the Majority Leader, stated his belief that history might record that by this program for education "we saved liberty and saved freedom. . ."¹³

The legal significance of this legislative history, and the reason it is reviewed in such detail herein, is that Section 305 must be considered as an integral part of the whole Act. In nearly all cases the view of Congress as to its own purpose in enacting a law is binding upon the Court. Moreover, the stated conviction of the Congress that the programs thus authorized were undertaken as a measure of national defense greatly strengthens the legal presumption of constitutional validity.

On September 2, 1958, President Eisenhower signed H.R. 13247, the "National Defense Education Act of 1958," into law. In a White House press release issued that day, the President took the occasion to say: "I consider this Act to be a sound and constructive piece of legislation."

THE CONSTITUTIONALITY OF SECTION 305

The constitutional reach of Congressional power was best stated by John Marshall, over 140 years ago, in his famous opinion in *McCulloch v. Maryland*.¹⁴ He wrote:

Let the end be legitimate, let it be within the scope of the Constitution, and all means which are appropriate, which are plainly adapted to that end, which are not prohibited, but consist with the letter and spirit of the Constitution, are constitutional.¹⁵

This is generally considered by legal scholars to be the definitive statement of the meaning of the final clause of Article I, section 8 of the Constitution, which confers upon the Congress the power "To make all Laws which shall be necessary and proper for carrying into Execution the foregoing Powers,

¹² Congressional Record, August 13, 1958, p. 17291.

¹³ *Ibid.*

¹⁴ 4 Wheat. 316 (1819).

¹⁵ *Ibid.*, p. 420.

and all other Powers vested by this Constitution in the Government of the United States, or in any Department or Officer thereof."

Marshall's doctrine is a convenient frame of reference for the matter in issue, because it narrows our inquiry. It is beyond dispute that the strengthening of education for national defense is a legitimate end for legislation, quite within the scope of the Constitution. Clearly, the strengthening of private education in defense-related subjects is one appropriate means plainly adapted to that end. It only remains to be determined if this is a means prohibited by the Constitution.

At this point a hallowed principle of constitutional law, also enunciated by Marshall, among others, comes to bear on the issue with potent force: *an Act of Congress is presumed to be constitutional.*

The effect of a presumption in law is not always appreciated. Stated most simply: a conclusive presumption absolutely decides an issue; a rebuttable presumption (as the constitutionality of an act) shifts the burden of proof to the party attempting to overcome the presumption, with reasonable doubts resolved in favor of the presumption. In the instance of an Act of Congress (or, indeed, of a state legislature), by long-established precedent, the presumption is *very strongly* in favor of constitutionality. The quality of judicial restraint is nowhere better shown and adhered to than in this principle.

The Presumption of Constitutionality

As early as 1798 the cautious attitude of the Court was voiced by Justice Iredell in his opinion in *Calder v. Bull*:¹⁶

If any act of congress, or of the legislature of a state, violates those constitutional provisions, it is unquestionably void; though, I admit, that as the authority to declare it void is of a delicate and awful nature, the court will never resort to that authority, but in a clear and urgent case.¹⁷

In 1870, in his opinion in *Miller v. United States*,¹⁸ Justice Strong wrote:

. . . for when a statute will bear two constructions, one of which would be within the constitutional power of Congress to enforce, and the other a transgression of the power, that must be adopted which is consistent with the Constitution. *It is always a presumption that the legislature acts within the scope of its authority.* [Emphasis added.]¹⁹

One of the most comprehensive discussions of judicial restraint in this respect is supplied by Justice Brandeis in his concurring opinion in *Ashwander v.*

¹⁶ 3 Dall. 386, (1798).

¹⁷ *Ibid.*, p. 399.

¹⁸ 11 Wall. 268 (1871).

¹⁹ *Ibid.*, p. 309.

Tennessee Valley Authority,²⁰ in which he outlines seven rules the Supreme Court has formulated for itself to avoid passing upon constitutional questions in cases within its jurisdiction.²¹ Brandeis spoke of "the long established presumption in favor of the constitutionality of a statute" and quoted with favor the statement of Chief Justice Marshall in *Dartmouth v. Woodward*²² that the Court had several times declared "that, in no doubtful case, would it pronounce a legislative act to be contrary to the constitution." He also quoted with favor (in footnote 12 to the opinion) the admonition of Chief Justice Tilghman of the Supreme Court of Pennsylvania, in 1811, that "an Act of the legislature is not to be declared void, unless the violation of the constitution is so manifest as to leave no room for reasonable doubt."

One might well ask whether this self-imposed restraint of the Supreme Court is relevant to the question of constitutionality, *per se*. (Indeed, it has been argued that the existence of the presumption imposes upon the legislator an additional obligation to assure himself of the constitutional validity of proposals before him.) The obvious answer is that the restraint of the Court is itself a recognition of the powers, duties, and responsibilities which the Constitution imposes upon the Congress, and that the solemn judgment of the Congress with respect to the means chosen to discharge its responsibilities is entitled to great consideration. Therefore this just deference is an inextricable part of the issue of constitutionality. The application of this principle to Section 305 is inescapable in view of the legislative history reviewed above.

The Congress, acting upon the most detailed investigation of educational needs for defense, chose to accord to the millions of our children attending private schools a measure of the assistance for improved instruction accorded all others. The instructional fields aided were those found to be most closely related to defense needs. Congress stated its findings and declared its purpose in the very preamble of the Act:

Sec. 101. The Congress hereby finds and declares that the security of the Nation requires the fullest development of the mental resources and technical skills of its young men and women. The present emergency demands that additional and more adequate educational opportunities be made available. The defense of this Nation depends upon the mastery of modern techniques developed from complex scientific principles.

... This requires programs that . . . will correct as rapidly as possible the existing imbalances in our educational programs which have led to an insufficient proportion

²⁰ 297 U.S. 288 (1936).

²¹ *Ibid.*, pp. 346-356.

²² 4 Wheat. 518 (1819).

of our population educated in science, mathematics, and modern foreign languages and trained in technology.²³

When the Congress acts to provide for the national defense it does so as a logical extension of the war power of the Federal Government. The Court has declared the war power to be an inherent attribute of national sovereignty, independent of affirmative grants of power in the Constitution.²⁴ Justice Story, years ago, gave the war power its logical extension to the maintenance of national defense in peacetime. He wrote:

How could a readiness for war in time of peace be safely prohibited . . . ? The means of security can only be regulated by the means and the danger of attack. . . . It will be in vain to oppose constitutional barriers to the impulse of self-preservation.²⁵

In *Ashwander v. Tennessee Valley Authority*,²⁶ the Court gave explicit recognition to this principle.

The Constitutional issue, then, might very well be decided by the answer to this question: How compelling is the presumption of constitutionality in the case of Section 505's loans for private schools? The answer must be that it is so great as to place an overwhelming burden of proof upon those who would assert that these loans violate the establishment clause of the First Amendment. For this reason, it is a shallow and naive legal argument that this issue is decided by a paragraph of *dicta* in *Everson v. Board of Education*²⁷ to the effect that tax funds may not be used for a religious purpose.

The case of *Dennis v. United States*²⁸ provides a graphic demonstration of the effect of the presumption of constitutionality. The issue was the power of Congress, in peacetime, to restrict freedom of speech in order to meet the threat of Communist subversion. The court has often declared free speech to be a "most favored" right. In a concurring opinion sustaining the Congressional judgment, Justice Frankfurter wrote:

The demands of free speech in a democratic society as well as the interest in national security are better served by candid and informed weighing of the competing interests, within the confines of the judicial process, than by announcing dogmas too inflexible for the non-Euclidian problems to be solved.²⁹

After observing that the Congress has the primary responsibility for adjusting

²³ 20 U.S.C. 401.

²⁴ See *United States v. Curtis-Wright Export Corp.* 299 U.S. 304, pp. 316-18.

²⁵ Story *Commentaries on the Constitution*, II, Sec. 1185 (4th ed., 1873).

²⁶ 297 U.S. 288 (1936).

²⁷ 330 U.S. 1 (1947).

²⁸ 341 U.S. 494 (1951).

²⁹ *Ibid.*, p. 524.

competing interests in our society, he concluded: "We are to set aside the judgment of those whose duty it is to legislate only if there is no reasonable basis for it."³⁰

The Establishment Clause

"Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof. . . ." This is the admonition in the First Amendment to the Constitution with which our Bill of Rights begins. We are concerned here only with the first clause, dealing with "an establishment of religion." The decisions of the Supreme Court which interpret this clause have been few in number and have been applied to an extremely limited set of circumstances giving rise to the cases. Nevertheless, despite the continuing debate among legal scholars as to the true purpose of the clause, we may conclude that the Court has given it the effect of raising "a wall of separation between Church and State."³¹ It is beyond the scope of our immediate concern to inquire into the precise dimensions of that wall. Our concern here is limited to whether the doctrine of separation, as it has thus far been developed, constitutes a bar to the loan program authorized by Section 305. We must therefore examine the relevant decisions of the Court.

*Bradfield v. Roberts*³² was a taxpayer's suit originating in the District of Columbia. It questioned the right of the District Commissioners to use Federal funds for the purpose of erecting a medical facility at Providence Hospital which was operated by a Roman Catholic religious order under a Congressional charter. The Court never reached the constitutional issue of separation of church and state, for it held that the hospital was a corporation separate from the religious order, although organized under the auspices of members of that order. Similarly, in *Quick Bear v. Leupp*,³³ in which there was questioned the use of Federal funds to support parochial schools on an Indian reservation, the Court held that the funds were appropriated to the use of the Sioux tribe under an 1868 Treaty, and were therefore the private funds of that tribe to be used as the Indians saw fit.

The constitutional issue involved in the use of public funds for the alleged benefit of private, parochial schools was not reached until 1930, in the case of *Cochran v. Louisiana State Board of Education*.³⁴ The case brought into question, on the grounds of violation of the establishment clause of the First Amendment, a state law providing state-approved textbooks free of charge to

³⁰ *Ibid.*, p. 525.

³¹ This was the phrase Thomas Jefferson used in 1802. See Saul K. Padover, *The Complete Jefferson* (1943), pp. 518-19.

³² 175 U.S. 291 (1899).

³³ 210, U.S. 50 (1908).

³⁴ 281 U.S. 370 (1930).

children attending both public and private and parochial elementary and secondary schools. The state courts upheld the practice as constitutional. Counsel for appellants argued that if the provision of free textbooks to parochial school students were to be considered a legitimate incident of the state's interest in education, then there could be no logical end to the purposes for which state funds could be used in support of parochial schools. The Court rejected this argument. Speaking for the Court, Mr. Chief Justice Hughes reasoned:

The legislation does not segregate private schools, or their pupils, as its beneficiaries or attempt to interfere with any matters of exclusively private concerns. *Its interest is education, broadly; its method, comprehensive. Individual interests are aided only as the common interest is safeguarded.* [Emphasis added.]³⁵

The application of this reasoning to Title III of the NDEA is apparent.

*McCollum v. Board of Education*³⁶ and *Zorach v. Clauson*³⁷ brought before the Court the question of whether particular "released time" arrangements violate the establishment clause. These are arrangements whereby public school pupils are released from classes for a short period to participate in religious instruction sponsored by local churches. In *McCollum* one such arrangement in Champaign, Illinois, was declared unconstitutional, principally because the religious instruction was actually conducted in the public school facilities. In *Zorach* the decision in the *McCollum* case was somewhat limited when the Court approved a New York arrangement in which the students were released for religious instruction conducted outside the public schools.

Each of these two cases is very important to a consideration of the broad issue of the reach of the establishment clause. The opinions, concurring opinions and dissents cover a range of judicial views and contain excellent dissertations on both the legal concept and the history of separation of church and state. The factual situations in these cases, however, are so different from that presented by the loan program authorized by Section 305 that the cases have a very limited application. An earlier case, *Everson v. Board of Education*,³⁸ is much more analogous.

Everson involved the constitutionality of a New Jersey law which permitted local school authorities to provide free bus transportation for students attending parochial schools. A sharply divided Court sustained the right of the New Jersey legislature to meet what it considered to be a public need. Speaking through Justice Black, the Court upheld the legislative appraisal:

³⁵ *Ibid.*, p. 375.

³⁶ 335 U.S. 203 (1948).

³⁷ 343 U.S. 306 (1952).

³⁸ 330 U.S. 1 (1947).

But the New Jersey legislature has decided that a public purpose will be served by using tax-raised funds to pay the bus fares of all school children, including those who attend parochial schools. . . . The fact that a state law, passed to satisfy a public need, coincides with the personal desires of the individuals most directly affected is certainly an inadequate reason for us to say that a legislature has erroneously appraised the public need.

It is true that this Court has, in rare instances, struck down state statutes on the ground that the purpose for which the tax-raised funds were to be expended was not a public one [cites cases]. But the Court has also pointed out that this far-reaching authority must be exercised with the most extreme caution.³⁹

The Court also concluded that the provision of free bus transportation to parochial school students does not constitute an establishment of religion, but added this sweeping *obiter dictum* on the subject:

Neither a state nor the Federal Government can set up a church. Neither can pass laws which aid one religion, aid all religions, or prefer one religion over another. Neither can force nor influence a person to go to or to remain away from church against his will or force him to profess a belief or disbelief in any religion. No person can be punished for entertaining or professing religious beliefs or disbeliefs, for church attendance or non-attendance. No tax in any amount, large or small, can be levied to support any religious activities or institutions, whatever they may be called, or whatever form they may adopt to teach or practice religion.⁴⁰

Literally applied, without regard to other constitutional principles or precedents, this language would appear to forbid even the maintenance of a Chaplains Corps in the Armed Forces. No such literal application could be intended by the Court because, for one thing, the Court itself insists that the facts presented by every case coming before it be viewed separately.

In the recent case of *Engel v. Vitale*,⁴¹ in which a divided Court struck down a prayer prepared by the New York State Board of Regents as a daily opening exercise in public schools, Justice Douglas' concurring opinion would literally apply the Everson dictum to every phase of our national life. He would condemn with equal impartiality free bus transportation for parochial students, Federal aid for church-sponsored hospitals, the use of the Bible in administering oaths of office, tax exemptions for religious organizations, preferential Federal income tax treatment for gifts to religious organizations, and the use of the inscription "In God We Trust" on coins and stamps. However great the respect which we must and should accord to the views of every member of the Supreme Court, we are privileged to be thankful that many

³⁹ *Ibid.*, p. 6

⁴⁰ *Ibid.*, pp. 15-16.

⁴¹ 370 U.S. 421 (1962).

such views, throughout our history, have never been accepted by the Court as the law of the land.

One other recent case should be mentioned. In 1961 the Court denied certiorari (declined to review) in the case of *Swart v. South Burlington Town School District*,⁴² in which the Supreme Court of Vermont had held to be a violation of the First and Fourteenth Amendments the use of tax funds to pay tuition for children who (because of the absence of a public high school in their district) attended a parochial school. No conclusion of law may be drawn from a refusal to grant certiorari, although the reasons are open to speculation. Certainly the payment of tuition for attendance at parochial schools goes far beyond the provision of loan assistance for improved instruction in specialized subjects related to national defense.

Application of the Facts to the Law

In *Federation of Labor v. McAdory*,⁴³ Chief Justice Stone wrote:

It has long been its [the Supreme Court's] considered practice not . . . to formulate a rule of constitutional law broader than is required by the precise facts to which it is to be applied, [citing cases], or to decide any constitutional question except with reference to the particular facts to which it is to be applied, [citing cases].⁴⁴

One may wonder, as has Professor Arthur E. Sutherland of Harvard Law School, at the extraordinary attention paid to *dicta* in the establishment cases.⁴⁵ *Dicta*, by which we mean expressions of the judges on points other than the precise ones involved in the case, are far less important than the actual holding of the court on the facts before it.

The Supreme Court of the United States has twice ruled upon the constitutionality of legislative actions that provide forms of assistance to parochial schools. The two cases were *Cochran* (free textbooks) and *Everson* (free transportation).⁴⁶ Neither case involved an Act of Congress; neither involved a legislative finding that the assistance constituted a national defense measure. Both cases sustained the assistance as constitutional; both rejected the argument that an incidental benefit to religious education would nullify the basic intent to achieve a public purpose.

⁴² 122 Vt. 177, 167 A 2d 514, *cert. denied*, 366 U.S. 925 (1961).

⁴³ 325 U.S. 450 (1945).

⁴⁴ *Ibid.*, p. 461.

⁴⁵ See Professor Sutherland's letter to Senator Morse of March 28, 1961, published in Senate Document #29, 87th Congress, 1st. Session, pp. 52-62.

⁴⁶ The decision in the *Everson* was reinforced in 1961 when the Court dismissed an appeal in *Snyder v. Town of Newton*, 147 Conn. 374 (1960), 365 U.S. 299 (1961). The appeal was from a decision of the Connecticut court that bus transportation for parochial students does not violate the 1st & 14th Amendments; the dismissal is an adjudication on the merits.

In each of these cases the aid was rendered directly to the parochial student, rather than to the school. Some commentators have elevated this circumstance to a legal principle, calling it the "child benefit theory." It should be apparent to all that such a distinction is illusory. The Court surely was aware that there was a benefit bestowed upon the school itself and, incidentally, upon religious education. What the Court has actually propounded is a *public benefit theory*. The true distinction which the Court appears to have made in each case was this: *Was it the primary purpose and effect of the legislation to aid a parochial school, per se, or was it to accomplish a broad and legitimate public purpose, in which the aid to the school is a necessary incident?*

The Department of Health, Education and Welfare took a narrower view of the constitutional issue in a 1961 memorandum on the subject.⁴⁷ The General Counsel of the Department concluded that a program which incidentally benefitted a parochial school would be valid if the financial benefit were comparatively meager and could not be avoided without defeating the legislative purpose. Even on this very narrow ground (which has been much criticized),⁴⁸ the Department expressed the view that the Section 305 loan program is constitutional.⁴⁹

The loans are available only for laboratory and audio-visual equipment and equally neutral instructional materials. *Textbooks of any description are not eligible for purchase.* And, of course, the equipment is limited to that used in instruction in mathematics, science, and languages. Obviously, by any measure, this is a far more restrictive assistance than the Court considered in either *Cochran* or *Everson*. Free textbooks and free bus transportation are far more pervasive aids to the entire parochial school system (and in a more attractive form than a loan). What grounds, then, could Mr. La Noue advance for his statement that the loans are unconstitutional?

Mr. La Noue ignores the actual holdings of the Court in the only two cases in point and goes back to the *Everson* dictum, in effect with a plea of "new information."

First, he argues that Congress based the loan program on the assumption that mathematics, science, and languages are "secular" subjects that could not have a religious content. To establish this, he cites questions asked by Representative Pucinski during a House committee hearing held nearly three

⁴⁷ Senate Document No. 29, 87th Congress, 1st Session, pp. 1-48.

⁴⁸ See Professor Sutherland's letter, *op. cit.*; also, in the same document, pp. 65-72, the legal analysis by Senator Keating. By necessary inference, Professor Mark De Wolfe Howe of Harvard Law School would also disagree with the narrow interpretation of the Memorandum of the Department, as he offered the opinion that loans to parochial schools for classroom construction would be constitutional, although he would not favor them (in letter published in the same document, pp. 50-51).

⁴⁹ Senate Document No. 29, cited above, p. 23.

years after the enactment of the National Defense Education Act.⁵⁰ This, of course, is wholly irrelevant to the legislative history of that Act. Although there is no direct evidence that the Senate Committee on Labor and Public Welfare even considered the question when they devised Section 305, we may speculate on whether those sophisticated men were so naive as to think that there is no religious content in the study of science. What is more likely is that a congressional committee which included a number of superb lawyers among its members would have recognized that a legal question would have to rest on other grounds. The Court had itself considered, in *Cochran*, the argument that a degree of religious instruction permeates the parochial school curriculum, and had unanimously rejected this argument as an irrelevant consideration.

But let us consider Mr. La Noue's argument on its own terms. Does religious content in a science class change the essentially secular character of the subject-matter? This is the kind of question that ought to be rhetorical. If one were to answer it in the affirmative, he should be prepared to assert that a theology course is really secular because it may also add to the student's knowledge of art and literature. The inflexible logic sought to be imposed tends to *reductio ad absurdum*.

Common sense is a more useful tool than so rigorous a logic. The equipment purchased with the loan funds does not add more teachers, or more classrooms, or more pupils to the parochial schools. It does not effect any element of religious instruction in any course. It simply improves the quality of instruction in mathematics, science, and languages. The pupils who already attend parochial schools are better prepared in these subjects of such critical importance to the nation. That was the intent of Congress in approving Section 305; that is the legitimate public purpose sought to be achieved. The public interest in this result is scarcely compromised if the student may also gain a more profound appreciation of the working of God in nature.

In a sense, not wholly relevant here, Mr. La Noue seems to have violated an old legal maxim about the danger of proving too much. For he actually proved that the religious element in these courses, in those schools where it exists at all, is subservient to the secular subject-matter. Moreover, his examples for the most part show that the religious influence is mostly present in the lower grades, whereas almost all the equipment purchased with the loan funds is for use in advanced courses.

The practical importance of these loan funds to the institutions is that they permit the school to embellish its curriculum. They do not actually support the basic, ongoing program of the schools, but merely strengthen it. Much

⁵⁰ Joint Subcommittee on Education of the House Committee on Education and Labor, Hearings on H.R. 6674 and H.R. 7378, 1961, Part I, pp. 121-122, 280.

the same thing is true of the grants to the public schools under Title III. The Federal funds are not substituting for funds that would have come from some other source. The sad experience prior to this assistance was that these schools were struggling along without modern equipment. They could not afford it on their customary level of financial support, whether from public taxes or private gifts and tuition. For this reason it cannot be maintained that this program releases funds for other uses. The loan assistance has afforded an opportunity to achieve excellence.

Conclusions of Law

It is concluded that the loan program authorized by Section 305 of the National Defense Education Act is a constitutional means by which Congress, in the interest of national defense, sought to improve the general level of elementary and secondary school instruction in mathematics, science and modern foreign languages. It is further concluded that this program comes well within the actual holdings of the Supreme Court as to permissible uses of public funds for education under the establishment clause of the First Amendment to the Constitution.

THE PUBLIC POLICY

An affirmative finding of constitutionality does not establish that a program is good public policy. The best tradition of the judiciary rejects the notion that the wisdom of a law is a matter for the determination of a court. That decision must be left to the legislature, and to the reflections of an informed public.

Approximately six million American children attend private, non-profit elementary and secondary schools. About 90 percent of this attendance is in the parochial schools of the Roman Catholic Church. The parents of all these children have assumed a private obligation; they exercise a constitutionally-protected right in doing so.⁵¹ The quality of education received by children attending these schools is a matter of public concern, evidenced, among other things, by the fact that the schools must meet standards set by the state in which they are located.

It would appear that many parents of private, sectarian-school children (and a number of clergy) feel that there is some public obligation to assist them in carrying out a private, religious purpose in education. This memorandum is not intended to support that position, with which, indeed, its author profoundly disagrees. There seems to be no more (or less) public

⁵¹ *Pierce v. Society of Sisters* 268 U.S. 510 (1925).

interest in the expansion of a local parochial school than in the expansion of the Groton School.

There are also those who feel that private elementary and secondary education is inherently undemocratic and divisive, and that it poses a threat to public education. Many of these individuals would deny all public concern for the vitality of private education, and, in fact, would make the state a virtual enemy of these institutions. This observer believes that to be a narrow, petty, and essentially destructive attitude.

Relatively few thoughtful citizens of any religious faith would suggest that we break down our well-conceived principle of separation of church and state; and few citizens would suggest that we turn our heads from the religious heritage that shaped our concept of a free society from the beginning of our national life. Yet it is most often just these few on both sides who dominate the public discourse on such matters. The political effect is often unfortunate; the effect of these extreme positions on our society is corrosive. It is time for all of us who are concerned with education, whether public or private, to muster a degree of passion for common sense.

This nation will rely for its very existence upon the products of our schools, private and public. Most of our private, nonprofit schools are in about the same situation and are facing the same problems as are the public schools in the communities they both serve. Efforts to improve the excellence of all our schools come as an intelligent response to the central danger of these times.

Our situation should not prevent, or even dilute, debate over the means chosen to improve education; but it should focus our attention upon realities. Private schools, apart from their purely private concerns, are an integral part of a great public enterprise. Is it unreasonable to assume that we can accommodate the public interest without giving undue preference to the private concern? The answer could be framed in the words of Chief Justice Vinson, written in another but analogous context: "To those who would paralyze our Government in the face of impending threat by encasing it in a semantic straightjacket we must reply that all concepts are relative."⁵²

The Federal Government renders many forms of aid to private education at all levels. At the college and university level, increasing assistance has flowed for a hundred years without any distinction as to the public or private character of the institutions.⁵³ The dollar amount of aid to higher education combined with payments for directed research, is in the magnitude of \$2 billion annually. Somewhat different factual and legal considerations apply to elementary and secondary education, but Federal benefits for private schools

⁵² *Dennis v. United States*, 341 U.S. 494, p. 508.

⁵³ For a comprehensive analysis of Federal aid for higher education, see the speech of Rep. Albert Quie in the *Congressional Record* for August 8, 1962, pp. 14863-70.

are not inconsiderable. The Section 305 loan program is one of the least vital of these. Yet this loan program has helped provide improved instruction for many thousands of students located in every part of the nation. The accomplishments of the program, unquestionably in the public interest, are impressive. It is reported that nearly half of the aided schools have used the funds to add new, advanced courses in the specified subjects. New courses in physics (for which equipment is very expensive) lead this list. A considerable number of the schools have been able to inaugurate new programs for gifted pupils (for whom the Congress has expressed much concern). There have been more language laboratories equipped with these funds than existed in all of the schools of the nation before the enactment of NDEA.⁵⁴ Moreover, every penny of the funds will be paid back, with interest.

These are the very results Congress intended. They benefit every American citizen as they strengthen the nation. It strains credulity that this program should not be regarded by every fair-minded person as an outstanding example of sound public policy.

⁵⁴ From personal conversations with Dr. George Decker, U.S. Office of Education, who administers the loan program, and with Dr. Samuel Halperin, Acting Director of Legislative Services, U.S. Office of Education.

Comment ON "LOANS TO NONPROFIT PRIVATE SCHOOLS"

DUNBAR HOLMES

Member of the Massachusetts Bar

In the opinion of many people, the prohibition against "an establishment of religion" means only that the government cannot set up an established church or prefer one church or one religion over another. If that view had been accepted by the Supreme Court, there would be no question as to the constitutionality of the National Defense Education Act. However, the Supreme Court has clearly construed the establishment clause to mean that the government shall concern itself solely with secular matters, leaving matters of religion in the private sphere. Hence the government should pass no law which aids any or all religions. This view was first clearly enunciated in the *Everson* case and the Court has purported to follow it in all later decisions. The only question

then is whether loans to church schools for the purchase of certain educational equipment constitutes aid to religion.

The avowed purpose and justification for parochial schools, not only Catholic but Jewish and Protestant as well, is that the secular education of young children cannot be separated from their religious education. As Mr. La Noue has shown in his article, the teaching of secular subjects in religious schools is in fact interwoven with the teaching of religion. Were this not so, there would be no necessity for parochial schools—a shared time program would be all that would be required for the religious education of children. Consequently, it is almost universally accepted that primary and secondary church schools are religious institutions and general aid to them is prohibited. This is inherent in the *Everson* decision and I do not believe that Mr. Radcliffe contends otherwise. Nor do I understand him to argue that a loan is not aid, but merely that it is less aid than a grant. Obviously loans do aid the recipient, otherwise there would be no reason to offer them.

Finally, I do not think he argues that the proposed loans are valid *solely* on the ground that they are to be used for the purchase of equipment which has no inherent utility in the direct teaching of religion. I am sure he realizes the *Cochran* case cannot be cited as authority for the proposition that the furnishing of secular text books to religious schools does not violate the establishment clause. That decision was rendered before the Court first held in the *Everson* case that the establishment clause was applicable, through the fourteenth amendment, to action by a state (as distinguished from the Federal Government). Consequently, the establishment clause was not involved in the *Cochran* case and the only argument made against the law was that it constituted a tax for a private rather than a public purpose. The courts of New York and New Mexico have since ruled that textbooks cannot, under their own constitutional provisions against aid to religion, be supplied to pupils of religious schools.¹ Only Mississippi has validated such a program. Certainly no one would contend that the government may furnish supplies for an art class conducted by a church as part of its adult education program, or basketballs for a church athletic league. Rather, the crux of Mr. Radcliffe's argument is, I believe, his *public benefit* theory, which he phrases as follows: *Was it the primary purpose and effect of the legislation to aid a parochial school, per se, or was it to accomplish a broad and legitimate public purpose, in which the aid to the school is a necessary incident?*

Mr. Radcliffe states this is the true distinction made in the *Everson* case. I find nothing in the language of the decision to support this conclusion. The rationale of that decision is that to provide bus transportation "as a part of a general program under which it (the state) pays the fares of pupils attending

¹ See *Judd vs. Board of Education*, 278 N.Y. 200 (1938); *Zellers vs. Huff*, 55 N.M. 501 (1951).

"public and other schools" is similar to other general provisions such as police control of traffic which, and I agree, need not be denied in certain locations merely because some of the people who benefit from the service may be on their way to a parochial school. The issue is whether the service provided is a part of the education which the government cannot support. I disagree with the *Everson* decision because the program was not one for the free transportation of children generally, but only for transporting them to school, and, to the extent necessary (which is the justification for providing it), a part of the education which the state cannot support. But whether rightly or wrongly decided, the language and rationale of the decision will not sustain the program we are now concerned with, which obviously provides direct aid to education. You may draw an analogy between bus transportation and traffic control, but you cannot do so with laboratory and visual aid equipment.

It seems to me that Mr. Radcliffe is really propounding a new and novel concept—that aid to religious schools is constitutional if the purpose is not to aid the school but to further some legitimate public purpose, in this case, national defense. But are not all proposed aids to church schools advanced for a legitimate public purpose, such as the education of our citizens? In fact, is not a high degree of general education as essential for national defense as technical or scientific training? Are such aids unconstitutional only if the purpose or motive is to aid the schools or the church which controls them? What is the limit of this doctrine? Why does it not apply to textbooks in secular subjects, or to the salaries of teachers of secular subjects? Of what significance, for our present purposes, is the fact that the type of teaching aid to be financed is, as Mr. Radcliffe points out, new and expensive?

The argument is simply an attack, in novel language, on the basic premise that the state cannot aid religious schools. Mr. Radcliffe's reference to the *Dennis* case suggests that he may be advancing the argument that the overriding importance of national defense is such that constitutional principles such as separation of church and state may be ignored, if Congress so decides. I have no fear that our civil liberties are in such jeopardy, at least under our present Supreme Court.

Mr. Radcliffe, like many proponents of a limited view of separation, argues that the "absolutist" view proves too much, since, if followed to its logical conclusion, it would invalidate many accepted practices. It is true that it would, but this is an argument against the soundness of these practices, not against the soundness of the view. Examples of practices which I believe improper are compulsory chapel attendance at West Point and Annapolis, baccalaureate services in public schools, and released time programs, both in and out of the schools. However, certain other practices which Mr. Radcliffe and others believe are violations under the absolutist position are not viola-

tions, in my opinion. The classic example is that of chaplains with the armed services. To bar chaplains in deference to the establishment clause would result in a violation of an equally or more important principle—the free exercise of religion. Men in the armed forces are, for the benefit of the government, removed from contact with their pastors and churches and the provision for chaplains rightly remedies this deprivation. However, chaplains should not receive rank or wear uniforms. In any event, the line between what violates the principle and what does not will be, if anything, more difficult to draw under a "moderate" than under an "absolutist" theory of the doctrine.

My purpose has been to argue what the Supreme Court should decide in this matter, not to predict what it will do. Mr. Radcliffe's paper is an excellent brief in support of the government's case. He has presented a perhaps plausible rationale for sustaining the subject provisions of the Act and the Court is probably capable of discovering another, if so inclined. As Mr. Radcliffe correctly points out, Courts do exercise judicial restraint, they like to avoid any appearance of usurping the powers of Congress, and they are not unaware of the feelings of the people. In the *Zorach* case, the Court showed uneasiness about the Church-State question and sustained a practice which, to me and to many other observers, is undistinguishable in principle from that held unconstitutional in the *McCollum* case; and it did so by the use of, to me, very muddy reasoning. After deciding the bible reading and prayer cases, in which they cannot avoid a ruling of unconstitutionality, the present Court may be in a mood to sustain some state action in this area if it can find a way of doing so.

The Spring 1963 issue of the REVIEW carried an article "Long-Term Student Loans: A Program for Repayment According to 'Ability to Pay,'" by Edward Shapiro. In this discussion the Honorable Edith Green, John F. Morse, and Theodore W. Schultz speak to problems raised by the article, and Professor Shapiro replies.

Discussion

STUDENT LOAN PROGRAMS

THE HONORABLE EDITH GREEN

Recognizing the many challenges confronting our nation in the education of youth, I welcome the opportunity to join in a discussion of the new and provocative ideas expressed in Mr. Shapiro's proposed loan program for college students. Such a proposal springs from a growing concern about the large number of extremely capable students who are deprived of a full education because of the high cost of a college degree. Recent studies indicate that each year as many as 100,000 highly qualified high school students fail to enter college because their families are unable to bear the financial burden. And this is only a part of the picture, for financial needs force an undetermined number of students to drop out of college each year.

This is happening at a time when the celebrated physicist, Dr. James Van Allen, cautions that our ambitions in space exploration already exceed our scientific competence. It is a time when Dr. F. E. Terman of Stanford University, a member of the President's Science Advisory Committee, warns that "The space program alone could absorb the entire EMP [Engineering, Mathematics, and Physics] output of the nation's universities and colleges during the next few years with nothing left over to take care of the needs for (a) defense, (b) the civilian economy, or (c) more teachers to handle growing college enrollments." This occurs at a time when there is a great national shortage of doctors, of nurses, of teachers, of ministers, of social workers, of scientists, of engineers, of technicians. So, on one side of the national ledger we have a shortage of trained manpower in almost every area, and on the other side we have a huge reservoir of untrained people.

All of us are aware of the titanic struggle for world supremacy between

the Communist world and the free world, but are we mindful that Russia today is graduating approximately three times as many engineers and twice as many scientists as we are? According to those competent to speak, the quality of this Soviet education compares very favorably with ours. Dr. Terman recently said:

At the end of World War II their electronics was primitive, their airplanes simple-minded, they had not even started work on the atomic bomb. Today Russia has sophisticated electronics, such as multi-beam microwave radar; it also has solid state electronic devices and large computers. Russia has military jet airplanes as good as our best. It has hydrogen and atomic bombs, and the largest bomb that has ever been exploded is the Russian 100 megaton bomb. Again, Russia's ballistic missiles for military and space have reached each new level of achievement both sooner and with bigger payloads than have our missiles.

The overwhelming technological gap that existed in 1945 between the defense technology of the United States and that of Russia has been greatly reduced. It could entirely disappear in another 25 years. The fact that we have better plumbing, more bathrooms per hundred people, electric toothbrushes, and more variety in women's hats may result in a civilization that we feel is superior, but these things don't count in the military and space competitions.

So I agree with the author of this loan program that there is an urgent and demonstrated need. The question of importance, then, is what solutions can be provided to ameliorate this need. Specifically, is Mr. Shapiro's proposal a partial answer to our problem?

Before beginning a detailed discussion of the plan, I would first prefer to speak briefly on the role of the Federal Government in education. Fortunately, Mr. Shapiro has bridged the gap into which so many fall when they argue the advisability and constitutionality of Federal assistance to education. The question today is not should there be Federal aid. That was decided over one hundred years ago. The questions are what kind of Federal aid and where and how the Federal dollars should be spent and why.

I never have been able to understand the rationale which has provided free education at both ends of the educational ladder, while at the same time has excluded student financial assistance at the intermediate steps. Free public elementary and secondary education is based on the sound public policy that our democracy depends on an informed citizenry. At the graduate level, though the rationale is different, we also find extensive public or government support for the graduate student. The Special Subcommittee on Education last year conducted a study of the role of the Federal Government in education. We found that some 37,500 full-time and part-time postdoctoral and predoctoral students received support in 1962 from Federal fellowship grants and traineeship programs. An additional 19,000 students received

support as research assistants through funds provided by the many Federal research contracts and grants. The rationale here is that the nation must have those with advanced degrees to meet the requirements of space exploration and military superiority.

Future programs contemplate even greater support than the 57,000 now financed. Serious consideration should be given to whether or not we are producing undergraduates of sufficient number and quality to qualify for the Federally financed fellowships and other programs of graduate support even now in existence.

Our study confirmed my belief that very little support has been given at the undergraduate level. Is there not an equally important national interest in seeing that the undergraduate "pool" is enlarged to provide outstanding candidates for the graduate work? The author of this new program suggests that "the individual is the primary beneficiary." But society and the nation also benefit immeasurably. Today college education is as important as high school education was twenty years ago, and yet we have no broad program of support except the NDEA loan program, and the G.I. bill which is being rapidly phased out. Somehow, we must, as a matter of sound public policy, devise a plan whereby as President Kennedy said, ". . . no student of ability will be denied an opportunity for higher education because of financial need." Mr. Shapiro has addressed this problem at the proper level and for this he should be complimented.

Agreeing with the purpose, I would like, however, to raise a few questions that bother me. The question of the advisability of a needs test is most important in a consideration of the eligibility of the student borrower. I appreciate the author's desire to avoid the "ticklish, administratively difficult problem of eligibility according to *need*" (p. 191), but is he not at the same time adopting a ticklish, administratively difficult problem of *repaying* on the basis of ability to meet financial obligations (or financial need)? In addition, I question the consistency of this approach, for at one point Mr. Shapiro states, "It was implicit in the foregoing that any student who was approved as eligible for loan funds would be able to secure whatever funds were necessary to carry him through his program" (p. 192). How does one determine the funds necessary to complete a program if not by a needs test?

While I might personally question the "needs test," may I also suggest that politically it would be unrealistic to propose Federal legislation which does not have a built-in needs test, or one which omits a limitation on the amounts to be loaned.

Certainly the repayment factor is the most interesting aspect of Mr. Shapiro's proposal. But I find a number of problems regarding the provision for repayment based on the ability to pay (a needs test at the time of repayment) and

in the supplementary payment required of those in the higher income brackets. This would establish a new precedent on the repayment of loans. In the business world, the more rapid the repayment of the loan, the less interest there is. In addition, in many loan contracts, it is specifically stated that there are to be no penalties attached because of an accelerated repayment schedule.

The Federal government presently administers a number of loan programs. In these there is no requirement that recipients who benefit by increased earnings shall repay at increased rates. Repayment rates for loans provided by the Small Business Act are not related to the earning ability or increased income of the borrower. The returns anticipated under the Area Redevelopment Act do not affect the rates of repayment. The National Defense Education Act student loans title does not contain this requirement. Is this new approach really desirable and if so, should it be applied to all Federal loan programs? Increased earning capacity is not the sole result of the loan, but this surely is the primary purpose on the part of the borrower in any one of the business loans cited as examples.

Another question comes to mind: would we not, in effect, be doubling the Federal tax for those individuals required to pay a supplementary amount over the repayment period because of higher income? Such an individual, whose earning capacity is increased because of his college education, would already be paying to the Federal government an extra amount under our system of a graduated income tax. To impose this double burden on these individuals is questionable. I should think it might also have an adverse effect on alumni gifts, producing in some cases the reaction, "They've taxed me extra, why should I give so much?" And again, if I may draw the comparison, the small business man who secured a Federal S.B.A. loan might well double *his* income and pay more Federal income tax, but *no* supplementary interest rate would be required in addition. Surely, the question of equity would be raised. Why single out college student loans as *the* place to require a supplementary interest rate?

Problems in administration and enforcement might prove most burdensome. The author suggests that the reports on income and the repayment of the loan be made at the April 15th income tax filing time. It seems to me that adequate enforcement would require auditing the income tax statements of those making the repayments. *The necessity of opening tax files to more and more people might be considered by most far more serious than the establishment of need as a prerequisite for eligibility.* And there is a growing resistance on the part of Congress to make such income tax files available for any one of a number of proposals that are brought up each year. In proposing a loan program for students, there is a basic assumption that the vast majority will honor their commitments and repay the money that has been

loaned by the college or university. Experience under the NDEA is very limited, but the indications are that this assumption is valid. I therefore question this complicated repayment formula with unequal treatment. This, combined with the fact that the tax files would become subject to inspection, would present a serious deterrent to the legislation.

Allow me to raise one additional question. According to Mr. Shapiro's plan, repayment would be based on increased earnings of the borrower. But what about the college woman who borrows, graduates, marries, has children, and makes a great contribution in the home but has no "earned income"? Does she only pay a low interest rate and nothing on the principal? As a woman who borrowed to finish college, as a mother who remained in the home for several years, and as a legislator, I would not like to see any Federal loan program that would cancel loans to women on such a basis. However, experience might also show that because of the provision of the law itself, a substantial percentage of the women would not be required to repay, and eventually colleges might add provisions of their own which would be most discriminatory to women students seeking a loan in the first place.

With Mr. Shapiro's general purpose, I am in complete agreement. Expanded loan programs *must* be provided. If we are successful (as I hope) in passing the bill for Federal grants for academic facilities, the necessity for increased tuitions and fees will also be lessened. But with spiralling college costs, I am very much aware of the fact that the present NDEA loan program is inadequate. The Office of Education tells me that they have unadjusted 1964 requests from Universities for \$148,000,000. The Act now provides only \$90,000,000. However, I would predict that this Congress will (1) increase the amount that any one student may borrow, (2) remove the ceiling for the individual college or university, and (3) increase the total amount provided in the legislation to meet the needs of the institutions.

As I stated previously, the Federal government has provided support—often quite generous—for advanced graduate work. I think it is inevitable that the day will come when not only more adequate loan programs will be provided but also Federal scholarships for the most gifted and the most needy undergraduates. To reach that point, I feel strongly that new approaches and unique proposals must be offered by educators, legislators, and interested citizens. With modifications, perhaps Mr. Shapiro's plan would be considered by the Congress and supported by the colleges and universities.

*The House of Representatives
Washington, D. C.*

JOHN F. MORSE

I have with enjoyment read and reread Professor Shapiro's proposal, "Long-Term Student Loans: A Program for Repayment According to 'Ability to Pay'." On reflection, however, I find the enjoyment is partially that which comes from observing a nimble wit engaged in a game of "Beat the Odds." Although the temptation to treat the proposal as a game is almost irresistible, I have been asked to view it from the point of view of a former financial aid officer.

I should say first that I view with considerable misgivings financial aid programs which are not what they purport to be. They tend to cloud and confuse the job of putting together in a rational way the various forms of support available to students who aspire to higher education.

If a scholarship is a gift, if a loan must be repaid, and if a job requires a given number of hours of work, the experienced financial aid officer can put together a package of support especially designed for the particular needs, plans, and resources of each student he is counseling. But if gifts under some circumstances must be repaid, loans under some circumstances need not be repaid, and jobs under the name of "work scholarships" require varying degrees of the student's effort, it is difficult for either the financial aid officer or the student to know where he stands. Furthermore, I suspect that as we think of new gimmicks to attach to these three basic forms of aid for students in our colleges and universities, we shall only compound the confusion.

One of the popular features of the National Defense Student Loan Program is the provision that half of all of the money borrowed will be canceled for those recipients who devote as much as five years to teaching in public elementary and secondary schools. The rationale for this provision has never been entirely clear to me, although it is quite obviously an effort to alleviate the critical shortage of teachers. Is the reason for cancellation the fact that teachers are notoriously ill-paid and therefore less able to repay loans? If so, the provision seems to me to be accepting as inevitable a situation which deserves frontal attack. Or is the provision designed to hold teachers in the teaching profession when they might otherwise leave? I question whether the mere canceling of a loan in itself will hold many in the profession, and question still more whether those for whom such a provision might be a determining factor should be encouraged to stay in teaching.

This, however, is not the main point. There is now considerable and quite logical support for extending loan cancellations to teachers in private schools and to teachers at the college level. There is also before the Congress a bill to provide similar cancellation to those who at the completion of medical education will enter country practice. It would seem equally logical to extend

cancellation to nurses, to engineering technicians, to social workers, and to those in other socially useful fields in which there are equally grave shortages. It is my contention that it would be far healthier if society would meet its problems more directly and provide a certain amount of gift aid to young people in great need of help rather than to determine, not necessarily accurately, which fields of endeavor are in most critically short supply and then try to attract particularly needy people into these fields by a kind of indenture system.

This is a roundabout way of coming to grips with Professor Shapiro's proposal, but I know of no other way to do it, for in a sense he proposes not a loan program, but a game of wits, or a lottery, in which escape routes and traps lie ahead for both the borrower and lender.

There is, of course, appeal in any plan that seeks to relate the repayment of a loan to the ability of the borrower to repay. It is true that a student as an undergraduate cannot always assess his future ability to repay a debt incurred to gain a college education. I cannot believe, however, that this is a major problem as long as neither students nor financial aid officers allow total indebtedness to mount to unmanageable figures. The present debt ceiling of \$1,000 per year and a total of \$5,000 built into the National Defense Student Loan Program is high enough to enable most students to go to some college, if they are willing to work during the summers and part-time during the college year. Perhaps even this amount of debt, despite the generous interest rates and ten-year repayment period, may be impossible for some to manage, but for the vast majority of college graduates repayment should not involve undue hardship.

Obviously Professor Shapiro is proposing indebtedness of considerably greater magnitude than this. He so proposes because he views as inevitable a sharp increase in the proportion of the cost of education that the student of the future will have to pay. In fact, he goes beyond this by recognizing that his proposal, if put into effect, would encourage increased fees in public and private institutions alike.

I have long felt that it is both reasonable and proper to expect that those who can afford to do so should assume a greater responsibility for their own education. I do not believe, however, as Professor Shapiro apparently does, that society at large should be relieved of the responsibility of providing for the education of those whose resources are so limited that they are not in a position to help themselves. I hasten to add that I see no reason why those who need assistance should not assume some of the obligation by borrowing a reasonable amount. Superficially the proposal under consideration would seem to offer the best of both worlds in that every borrower's debt would by definition be reasonable; and not society but only other borrowers, fortunate

enough to earn high incomes after receiving their degrees, would carry the load.

Even if one were to agree that the scheme is desirable, I do not believe it would work. With considerable ingenuity Professor Shapiro has suggested solutions to many of the inevitable problems. Through the device of a supplementary rate scale, payment under which would not reduce the borrower's indebtedness, there would presumably be enough income from surcharges to take care of those whose incomes will never be sufficiently high to pay off their entire indebtedness. He argues that this supplementary rate scale would be sufficiently stringent to discourage borrowing beyond the student's need, thus eliminating the necessity of need analysis in considering an application. It is not clear why he feels it desirable to eliminate this process which has become a factor, and a reasonably reliable one, in virtually all college, state, and Federal financial aid programs. In fact, however, he recognizes that "an upper limit would have to be established . . . to prevent overdrawing of loan funds by qualified but financially irresponsible students" (pp. 192-93). This seems to me to put us back into some kind of need analysis.

He recognizes, second, that in order to avoid payment of supplementary rates, borrowers who foresaw that their incomes were going to be high would seek to pay off their indebtedness as quickly as possible and ahead of schedule. In order to forestall this he proposes penalties for early repayment. While such a provision would quite obviously be necessary, it would surely be repugnant to those provident souls who might, for example, wish to wipe out their own indebtedness in order to begin to provide for their children's education.

He recognizes that it will take some years to determine the proper repayment rate and also the proper supplementary rate, and he proposes that at the outset each be set high in order to assure that the program will be self-supporting. This too seems necessary, but particularly unfair to those students who must serve as guinea pigs while the program is being launched. It is these and other considerations which give the whole proposal the aspect of a game. It is a game, however, in which I do not believe that it is possible to outwit the borrower. There would obviously be no way in which to make such a program compulsory. There will always be programs, at least at commercial if not at subsidized rates of interest, open to students with good prospects of later financial success. While it is true that not every student can assess his future earnings, most of them know by the very choice of their careers, if not from their social and economic background, whether they are likely to be in the high earning group or the low. Professor Shapiro's program will be attractive indeed to those who anticipate careers in the less well-paid professions, to those in the minority groups who know too well

that their earnings are likely to be low, and above all to women who will leave the college gates with every intention of raising babies rather than earning dollars and who will, therefore, be relieved of any responsibility for repayment.

On the other hand, for those planning to enter the highly paid professions and industry, fixed obligations with known repayment schedules and known, even though higher, interest rates will be more attractive. It would seem inevitable, therefore, that the supplementary rates would eventually be raised to exorbitant levels in a losing effort to balance underpayments.

I think the fallacy is apparent. I am instinctively in favor of giving relief to those who borrow for their education and who, through ill-fortune or social conditions or the fact that we grossly underpay those who devote themselves to many useful callings, are unable to repay. But to relieve them requires that someone else carry the load. Professor Shapiro suggests that that someone be those whose borrowing for education pays off financially. I am not sure that I think it is fair to place this responsibility on the shoulders of these few. They will pay their "debt" twice over through the progressive income tax. But even if it were fair, I believe that a majority of those who are going to be financially successful have enough ingenuity to duck out from under.

Rather than invite such a game of wits, I should prefer to see a continuation and expansion of the current Federal loan program. If loans are kept at a modest level, even borrowers who fare ill in later life should be able to repay them. Coupled with these loans should be grants, either in the form of scholarships or in lump sum payments related to parental income for those in great need. Such a program is already in effect in New York State.

If, however, it is politically more feasible to take the less direct route and provide all aid through loans, some relief must be found for those in neediest circumstances. Providing that relief by relating repayment to later earnings may well have merit. My objection to the proposal under consideration is that in the supplementary rates the government, which is to say society, is relieved of an obligation which in fact it cannot avoid. Rather than impose the supplementary rates on some borrowers, these rates should be a barometer, useful for forecasting for the Congress or state legislatures the cost in tax dollars this kind of program would entail.

The American Council on Education

THEODORE W. SCHULTZ

Professor Shapiro's article proposes loans to students which are to be repaid in accordance with "ability to pay." My comments are restricted to particular side effects of these loans which are not considered in the article but which should be taken into account in evaluating the proposal. Let me present these comments mainly as questions which I shall not attempt to settle, for to do so would go far beyond the scope of this brief comment.

1. Substitution of these loans for gifts. Colleges presumably would increase their revenue by raising tuition and the source of this additional revenue would come ultimately from the rise in the future earnings of the students. But, colleges now receive annually substantial gifts from former students who because of preferences and ability to pay contribute financially to "their" colleges. To what extent would these loans to increase college revenue, which are to be repaid in accordance with ability to pay, become a substitute for gifts to colleges by former students also made possible by increases in ability to pay?

2. Is there any assurance that more students will be admitted? There is no provision attached to these loans which would require the colleges "benefiting" from them to enroll more students. This proposal simply assumes that the increases in tuition, which would follow as a consequence of these student loans, will be used to enlarge the instructional capacity of colleges and therefore a larger number of students will be admitted. Since colleges are not run for profit, an increase in revenue from higher tuitions is not necessarily an incentive to build more classrooms and employ more faculty to provide instruction for more students. Why shouldn't the private colleges that have high academic prestige and that are of optimum size as viewed by the college authorities decide to hold to their present enrollments? Surely, the additional revenue can be used for many "good" purposes other than enlarging the student body.

3. The ability of students to pay after they leave college, on which this proposal rests, presupposes that student will enter upon work that produces taxable income. But no distinction is made in the eligibility requirements of these loans between students who will enter and those who will not enter upon such work. Many women who attend college will not enter upon work that produces taxable income. As the proposal stands, they appear to be eligible for these loans. They therefore would enjoy a "free ride," and what this would do to the supplementary rate schedule is easy to imagine. But suppose a rule is introduced to make these women ineligible. What would be the test for such a rule? A declaration of intention "not to marry"? Or, if she were to marry, an agreement that she take employment which earns a taxable income

until the loan has been repaid? Surely a test of this kind would be absurd.

4. The future ability of students to pay, measured in terms of taxable income, will be affected not only by the education they receive but also by a number of other factors. How will a program of student loans along the lines of the proposal under consideration cope with these "other factors"? To the extent that the future ability to repay is determined by the student, what is to keep the supplementary rate schedule within bounds? Surely, some students have goals that do not lead to the required taxable income. Women who marry and who then forego earnings in order to devote themselves to the home are in this class. Some students will enter the Peace Corps. Some will prefer still other social and intellectual endeavors for which there is little financial reward. There will also be more students who will find it convenient not to attain the required taxable income. On-the-job training is an important investment that college students make in themselves (see Jacob Mincer, "On-the-job Training: Costs, Returns, and Some Implications," *Investment in Human Beings, Journal of Political Economy, Supplement*, October 1962, Table 2, page 57). Some will find these loans, because of the way in which they are repaid, an incentive not to incur the costs of the on-the-job training.

5. It is not at all obvious, as a consequence of the "adverse selection" which would appear to be possible for reasons touched upon under 3 and 4 above, that the supplementary rate schedule will not become so burdensome as to defeat the primary purpose of these loans by forcing the normal and the better than average students to forego using these particular student loans altogether.

University of Chicago

EDWARD SHAPIRO—A REPLY

A program with the many ramifications of the one proposed is well designed to call forth a diversity of discussion. This the contributors have provided in full measure. Though in some cases more than one has advanced the same criticism (e.g., all point out the opportunity for the college woman to "escape through matrimony"), each has managed to strike upon different questionable aspects of the program. The best procedure, therefore, seems to be to reply to the discussants in order, indicating the points at which the reply to one is a reply to more than one.

I

Professor Schultz's criticisms, not the least devastating but the least lengthy, will be answered first. He handily lays them out in numerical order and they may be answered in that fashion.

1. Professor Schultz seems to interpret the program as one designed to increase college revenue. While this would be an important effect, it is incidental to the purpose of providing every academically qualified but financially unqualified high school graduate with the means of attending college. The loans granted to such students, it is true, would enable colleges to raise tuition charges, but does it follow that the additional revenue so secured would be merely a *substitute* for gifts now received from former students? Even with the program in full swing, the majority of the average college's students would probably be non-borrowers and it is from this more affluent group that the college would in any event receive the bulk of personal gifts. And even borrowers under the program who become financially successful in later life will not necessarily neglect their "alma mater" because they made payments to the government lending agency under the supplementary rates of the loan program. What is more telling, sizeable gifts do not come from graduates in their twenties or even thirties. The capacity to make such gifts typically arises in later years or long after the average loan has been repaid in full. Mrs. Green offers essentially the same criticism to which the same reply is applicable.

2. Professor Schultz asks: "Is there any assurance that more students will be admitted?" Any individual college may expand or contract enrollment, raise or lower standards, or increase or decrease tuition, if it is so able and so chooses. The policy of each institution is determined entirely by that institution and in no direct way by the loan program. If the capacity of the higher education system does not grow to meet increasing demand, what the loan program should do is help see to it that those best qualified on other than financial grounds will be those who gain admission. If the system is not to serve all, let it at least serve the best.

3. All three discussants point out that the many women who marry and become housewives would obtain a "free ride" under the program.¹ Avoidance of repayment by so many would clearly send the supplementary rate schedule soaring to a level which would destroy the whole program. Such avoidance must be prevented. The method proposed: the woman's unpaid debt becomes the debt of that woman *and* her husband at the time of marriage. Taxable income is then the combined taxable income (or preferably, at the option of the couple, this amount or one-half thereof). This method, critics will be quick to note, operates to reduce the "attractiveness" of the young lady in the eyes of prospective suitors, or worse, leads to a postponement of marriage, or still worse, adds an ineradicable body of "debt-laden spinsters" to society. Modifications of the general rule to avoid such horrendous results (and to cover inequities which, for example, would arise in cases in

¹ Treatment of this aspect was omitted from the paper due to space limitations; here again space limitations permit no detailed consideration.

which both husband and wife were debtors) are administratively feasible; unfortunately, space does not permit their development.

4. Professor Schultz is concerned that there will be so many borrowers with taxable income below that at which repayment becomes obligatory as to send the supplementary rate schedule out of bounds. It is a little difficult to believe, as he suggests, that among these could be an appreciable number of "... students who find it convenient not to attain the required taxable income." A man who would *deliberately* over the first *twenty* years of his employment hold his income down to the very low level that exempts him from repayment would be a rare bird indeed. A quite different and non-fictional group would be students who deliberately choose life-time careers in fields in which the financial rewards are extremely low. But would this number be so great as to produce a calamitous rise in supplementary rates? The number would depend in part upon the level of taxable income at which annual repayment becomes obligatory. While there is a limit to how low this may go without violating "ability to pay," it seems that equitably set it would hold this number to a manageable proportion.²

5. Professor Schultz sums up most of the objections raised above in the expression, "adverse selection." He argues that "adverse selection" could be such as to destroy the program. Perhaps he would agree now that this becomes much less likely, if, as intended, the program denies a "free ride" to women who marry, and if, given the availability of other loan programs, all of the prospective low income earners are not attracted into the proposed program, and if the losses due to "adverse selection" need not be met only by ever higher supplementary rates but can be reduced by a decrease in the minimum taxable income at which repayment becomes obligatory. If through these and other means "adverse selection" could be minimized without interfering with the basic purpose of the program, this alleged shortcoming would be met.

II

Since the proposed program is one which would require Federal legislation

² Perhaps even more important in this connection is, as Mr. Morse points out, the number of present loan programs which offer the inducement of a total or partial cancellation of debt to students who will enter specified professions, commonly low-paying professions. The proposed program would neither replace such programs nor depend upon the existence of such programs. However, given that they do exist, the student who has chosen such a profession for his life work (or for at least that time interval which permits cancellation of his debt) will certainly, if possible, borrow funds under one of these programs rather than under the program here proposed. The former assures the opportunity for complete or partial cancellation; the latter assures complete cancellation only if he maintains a very low income for the first 20 years of his working life and partial cancellation in the typical case only if he maintains a very low income for the better part of these first 20 years. The cancellation privilege available in present programs could be woven into the proposed program. In this event, however, government must stand ready to cover the losses which must result therefrom and not impose these on other borrowers through higher supplementary rates.

(preceded by a great deal of study) for its implementation, Mrs. Green from her vantage point has called attention to several features which the Congress would probably find intolerable: the absence of a needs test and of a limitation on the amount any student might borrow. To dispose of the latter first, ". . . an upper limit would have to be established for each year" (p. 192). Due to space limitations, the question of what this maximum should be was not considered. The objective would be to set it sufficiently high to permit a student to secure the college education he would otherwise be denied. This brings us to the absence from the program of a needs test. As the program was set forth, the student would, given his resources and whatever aid he might get elsewhere, decide how much he must borrow per year within the upper limit established. The propensity of some to borrow in excess of need would be restrained by the special features of the repayment provisions and by counsel of parents and college advisers. Mr. Morse as well as Mrs. Green find this approach unacceptable. They prefer the traditional approach in which the borrower must show evidence of need and the maximum loan granted is based upon the evidence submitted. Since there is nothing at all inconsistent between the most stringent of needs tests and the purpose and functioning of the program, such tests are perfectly acceptable. Whether the program would or would not work depends in no essential way upon this issue and the program may be revised accordingly. As a practical matter, following tradition in this matter makes the overall program less extreme, without at the same time detracting from its essence, which is its repayment provisions.

Mrs. Green's next criticisms turn specifically to the repayment provisions. She erroneously concludes that there is no interest saving in a rapid repayment. As shown in Column 5 of Table 2, interest per time period is based on the unpaid balance for that time period. The faster this balance is reduced, the smaller becomes the interest charge per time period. Next she concludes (as does Mr. Morse) that there are penalties for rapid repayment. As shown in the footnote to p. 203, the program may be simply adjusted so that the amount repaid will be lower, the faster the rate of repayment. Mrs. Green finally makes a criticism which amounts to a rejection of the supplementary rate schedule (also rejected by Mr. Morse). Since other loans made by government do not require that ". . . recipients who benefit by increased earnings shall repay at increased rates," Mrs. Green by analogy finds it inappropriate here. This is half the story—it overlooks the fact that these other loans made by government are typically repayable on favorable terms and at low interest rates but are legally repayable regardless of the ability of the borrower to repay. A borrower is not excused because his business venture did not turn out too well as would a student be excused because his taxable income remains very low. The very heart of the proposed loan program is not to put the

student in the position of an ordinary business borrower. Anyone who believes that he must be so treated will dismiss the proposed program forthwith. The very foundation of the program is that these loans are of such a nature that the rules of ordinary commercial practice are not the most appropriate.

If a supplementary rate schedule based on ability to pay is rejected and ordinary commercial principles are to apply, one really need go no farther—the program is apparently rejected. But perhaps Mrs. Green will accept the ability to pay principle for the standard rate schedule, if only we do away with payments under the supplementary rate schedule. Throw out the supplementary rate schedule *in toto* and we still have a program (albeit a much different one), *if and only if* Congress will appropriate the funds which would otherwise be raised under the supplementary rate schedule. But practically speaking, as Mrs. Green will probably agree, we then have a program with even less chance of Congressional approval. As it now stands, one advantage of the program is that it will involve negligible or no cost to taxpayers; this can not help but give it some appeal. But this advantage, of course, results from the supplementary rate schedule. One can't have his cake and eat it. If the program is to be self-supporting or approximately so, the supplementary rate schedule is indispensable. If these rates can be held to levels sufficiently low as not to act as a deterrent to many prospective borrowers (which Professor Schultz doubts), there appears to be no serious barrier to the solvency and success of the program in operation.

III

Mr. Morse sees the program based on "ability to pay," at least one that includes the offensive supplementary rate schedule, as no loan program at all but a game of "Beat the Odds" or a lottery. There is apparently no gamble in present student loans, because (1) these do not call for repayment of less or more than was borrowed and (2) because these are loans limited to an amount too small to create any real concern to the borrower as to his ability to repay. In Mr. Morse's judgment, the NDEA limit of \$5,000 per borrower is such that ". . . for the vast majority of college graduates repayment should not involve undue hardship."

While one could argue that the assumption of even a \$5,000 fixed obligation can be a source of real concern for many college students, let us go along with Mr. Morse's contention on this point. For most this may well be a debt of manageable proportions, but for too many it is an amount too small to enable them to finance their college education. For the many students from very low income families who must clothe, feed, and house themselves, the \$1,000 per year limit is far from sufficient to cover these costs plus tuition and other charges. Even when supplemented by the meager savings a student can

accumulate through summer employment, it is still far from the minimum required for mere subsistence. But if this maximum permissible indebtedness is to be increased, as it must be if the needs of many deserving students are to be met through loans, there is a point at which the assumption of a larger debt with a fixed repayment schedule confronts the student with a definite gamble. Mr. Morse must concede that there is a level of indebtedness at which the student will begin to question his ability to repay at a predetermined rate.

The student would in effect be asked to gamble that his income in the years after graduation will be sufficient to meet this sizeable, fixed obligation. But even with this larger debt, this gamble is eliminated if repayment is geared to the borrower's income. It is true that those more fortunate borrowers whose incomes are substantial in the early years after graduation will be required to pay something under the supplementary rates. Mr. Morse would say that these borrowers gambled and lost—they failed to "Beat the Odds." They have suffered the grievous misfortune of enjoying substantial incomes and by so "winning" in this direction have as a result not won at all but have lost. For a very small percentage of their incomes must now be turned over to the lending agency under the supplementary rates. To lose in this way will likely be the deliberate objective of a majority of borrowers. Of course, the more that succeed in so "losing," the smaller will be the "loss" to each; the supplementary rates will remain low or even fall. Mr. Morse's argument reminds one of the taxpayer who by good fortune sees his income double from one year to the next and as a result decries this misfortune that exposes him to higher personal income tax rates.

Mr. Morse believes that there would be few "losers" in this sense within the program, for students who expect their incomes to be so high as to be at all subject to the supplementary rates will avoid borrowing under the program. They instead will somehow borrow the required large amounts from other sources at the disadvantage of a higher interest rate but with the "advantages" of a fixed repayment schedule and a fixed amount to be repaid. Most will know in advance which is the better road to follow for, according to Mr. Morse, most students can assess their future earnings with some accuracy from their very choice of careers. Is each individual's future at all this certain? While there is no doubt that the *average* income of a physician will exceed that of a social worker, within the better paid professions there is considerable dispersion in individual earnings. One who sets out to become a physician, lawyer, or engineer may look to the average annual income in these professions but he has no reliable way of predetermining whether he will find himself far above or far below the average in a distribution which exhibits a wide dispersion. He may begin at the same "starting" salary as others, but in the

years that follow the dispersion appears. And beyond financial success or lack thereof in his chosen profession, his gross income does not accurately measure how much of a sizeable debt he can repay each year without "undue hardship." There are numerous other unpredictable variables with differing impacts upon different borrowers which also affect the ability of each to liquidate debt in the early years of their working lives. It seems doubtful that "adverse selection" from this direction could be as disastrous as Mr. Morse suggests. With a sizeable debt incurred, the peace of mind provided by repayment geared to ability to pay may offset for many the contingent "loss" of paying something extra over the years under the supplementary rate schedule.

All of this, however, assumes that a student will incur debt of such size as to present, potentially at least, a problem in his future. Mr. Morse would avoid this eventuality altogether. He would keep loans at so modest a level that even borrowers who fare ill in later life should be able to repay them. He would make up the difference between restricted loan funds and the larger required funds through outright grants to students in need. As the cost of a college education rises each year, the amount of grant per needy student will be increased accordingly. Who is there that will not favor this approach over that of the proposed loan program? I am not one of them. But who is there that believes that tax-financed funds will be forthcoming from the Congress and the state legislatures in the ever-increasing amounts required under this approach? I am not one of them. We have not yet reached the point at which society at large believes that anything approaching a free college education should be tax-financed for all deserving students.

The proposed loan program is not set forth as the socially "best" approach to the problem, and it is this approach that Mr. Morse is asking for. If he can offer a "program" which will bring society at large to shoulder voluntarily the tax burden necessary to provide every qualified student with a college education, regardless of his financial means, he may count me among his supporters. But nothing of the kind is offered. Mr. Morse seems to talk about what *should be* and not what *is*, about political possibilities and not current day political realities. At this point, his criticism is not really criticism of the loan program but rather criticism, and well earned, of society at large for its apparent unwillingness to assume a larger portion of the cost of financing higher education.

It is the current day political reality that leads Mrs. Green to say that "Expanded loan programs *must* be provided." If this indeed is what the future holds, if more and more students are to find it necessary to incur larger and larger debts as the price of securing a college education, we then have not the situation that Mr. Morse, myself and most others in the field of higher education would prefer, but a situation with which the proposed loan program is

meant to cope. In the last paragraph of his comments, Mr. Morse concedes that in such a situation, ". . . relating repayment to later earnings may well have merit." Like Mrs. Green, however, he would reject the use of the supplementary rate schedule to cover the losses under the standard rate schedule. Whatever the losses are, they should be covered by Congress out of general tax revenues. In terms of equity and workability, I agree that this is preferable to reliance upon the supplementary rate schedule. Society would not then, to quote Mr. Morse, be ". . . relieved of an obligation which in fact it can not avoid." But again the rub is the same: society is making a determined and not unsuccessful effort to avoid this obligation. Would that it were otherwise. It is the fact that it is not otherwise which is the only justification for the proposed loan program with so radical a feature as the supplementary rate schedule.

IV

If one can draw a single conclusion from the comments of the discussants, it is that the program as originally set forth emerges damaged but not demolished. Unavoidably all of us have been compelled to resort to "informed guesses" as to the results which would follow from various features of the program. If such could be undertaken, study of available statistical data from the point of view of the questions here encountered and conducting of surveys among students, college officers and others would lead to more reliable guesses as to what some of these results might prove to be in practice.

The principal question, a really reliable answer to which can only be gained through experience, is how low the supplementary rate schedule would have to be in order not to deter more than a minor percentage of prospective borrowers. It might be that a schedule whose maximum effective rate does not exceed two or three per cent would be a deterrent to relatively few. No borrower would know with certainty that he would have income subject to even this maximum rate. At the time of borrowing, the maximum potential "loss" he could suffer in the future under this rate, if his income should turn out to be so very high, might well be offset in his mind by the "gain" he would enjoy through a repayment schedule tailored to his income over the years of repayment, if his income should turn out to be rather low. Whether a supplementary rate schedule with this maximum rate could make the program self-supporting is another question. It would certainly cover a part of the losses under the standard rate schedule; study such as mentioned above might give some clue as to what part, if not all, this might be. Under this approach, Congress would, of course, be called upon to make up the difference, if any, by appropriation each year.

As is apparent, this approach represents a compromise between a program which, if it would work, would be completely self-supporting and a program

which is reasonably certain to work but which requires some amount of support from the nation's taxpayers. In view of the telling criticisms of the discussants, it would appear that such a compromise approach is the best that can be gotten out of a system based on payment according to ability to pay. The only meaningful but apparently politically impractical alternative is the complete abandonment of any supplementary rate and reliance upon Congressional appropriation to make up the full amount of the losses. My impression is that the discussants would prefer this approach to one containing any supplementary rate at all. I would too. Perhaps some day society will cease dodging its responsibilities and assume the tax burden with this approach. We then indeed would have an equitable program which would permit every qualified student to gain a college education and pay for it, in whole or in part, according to his ability to pay.

University of Detroit

The Editorial Board welcomes comments on articles, reviews, and letters that have appeared in the REVIEW. Communications should be addressed to: HARVARD EDUCATIONAL REVIEW, 8 Prescott Street, Cambridge 38, Mass. Letters from readers will be published, or printed in part, at the Editors' discretion.

To the Editors

THE PHILOSOPHIA PERENNIS: PROFESSOR ULICH REPLIES.

To the Editors:

I have been asked by the editor of the HARVARD EDUCATIONAL REVIEW to respond briefly to the discussion "Philosophy of Education," occasioned by my recent book with the same title [HER, Spring 1963].

There could probably be no more severe critic of this book, as of all my other books, than the author himself. It was written with the intention to provide an introduction to the principal issues of education and, implicitly, to bridge the unnecessarily wide and increasingly dangerous gap between secularism and religion in our schools.

When writing such a book, a serious author is always torn between the necessity of popularization on the one hand, and the desire for scholarly analysis and systematization on the other. The ideal will never be achieved. And I presume that Professors Charles Frankel and Kingsley Price are kind to my work primarily because they wanted to defend it (and to a degree their own

points of view) against the highhanded criticism of Professor D. J. O'Connor of the University of Exeter, England.

The reason why I now concentrate on his review goes far beyond any personal consideration. Rather I feel that it deserves special attention for its disclosure of a serious and universal topic, the role of philosophy in the past of humanity and especially in our troubled present. If, according to Professor O'Connor, philosophy is to be *nothing but* the "careful piecemeal dissection and criticism by rational methods of concepts and theories," and if everything else is "urbane and cultured sermonizing" (p. 219)—my thanks for the fine attributes of "urbane" and "cultured"—then philosophy restricts itself to a function which, however important, is just one among others. But making a whole out of a partial approach seems to me characteristic of dogmatists and intellectual totalitarians who, when let loose against philosophy, would exclude Plato's *Republic*, Spinoza's *Tractatus Theologico-Politicus*, Locke's writings on government, tolerance, and education, and Kant's treatise on *Perpetual*

Peace. All these works, and most of those which have formed our culture, would fall under the category of "sermonizing."

But where, then, would be their place on the *globus intellectualis*? Whatever the answer, the great tradition of the *philosophia perennis* would be broken, the departments of philosophy, in my youth still the intellectual centers of the universities, would abdicate, and youth would have to seek the answers to its questions elsewhere. Actually, it already does so, as is clearly proved by the increasing interest in the departments of psychology and sociology. For in these departments the human person, including the student, is regarded not merely as a being that intends to become a specialist in logic, but as an incorrigibly multiplex creature in which, alas! logic and rationality have a hard stand against other proclivities, desirable and undesirable.

But how much more effective could these new departments be (including those of education) if their students, and sometimes even their teachers, had felt not only the rationality, but also (I apologize) the inspiration that comes from the study of the great philosophers. Professor O'Connor himself recommends that in accord with certain premises in my book I concentrate more clearly on "sociology." But he should take his analytical puritanism seriously and define first what "sociology" is. So far, I think, no one, from Comte, Spencer, and Max Weber on, has succeeded. Happily, though sometimes falling like a young skater on the slippery ice, the sociologists and psychologists struggle on. And therein lies their risk, but also their productivity. Somehow, they act similarly to the fathers of the American Revolution, who fought for liberty before they had found time to subject it to logical analysis. Without the imardonable sin of analytical haziness, com-

mitted by all real doers, America would still be an English colony.

Les extrêmes se touchent. Another reviewer, Professor Brezinka, teaching at the University of Innsbruck, criticizes my book for a certain vagueness. Apparently, he misses unequivocal references to the traditional terms of the Christian tradition without which, so he believes, the teacher as well as the pupil would be without intellectual and spiritual guidance.

May I first say principally that I believe it to be intellectually more honest to confess humbly one's vagueness than to pretend one has clear definitions when definitions merely conceal one's ignorance. On the other hand, I think that vagueness should not prevent us from speaking, for, if it did, man could not discuss most of his deepest existential experiences.

Thus, in all consciousness of my shortcomings, let me try to explain what I meant to say when discussing certain matters of Weltanschauung. We all agree about the "crisis" of our Christian-Western culture; it seems to have been one of its permanent characteristics. This is not a problem of "some intellectuals," as Professor Brezinka seems to believe. For more than a hundred years doubt has penetrated the minds of the simple as well as of the erudite, and especially those of conscientious teachers. Obviously, the "symbols" and the "concrete visions" offered by traditional Christianity are no longer "meaningful" to a large number of people, even church goers. More and more, as Professor Brezinka can see when looking around in his own Austria, these symbols have become a matter of conformity, or they have a primarily aesthetic value (one likes "the beauty of the cult"), and at many places they have caused indifference, if not cynicism.

Against the assumption of Professor

Brezinka, I do not believe in a "super-religion for modern intellectuals," (p. 222) which would be an undifferentiated and undifferentiating abstraction. But Professor Brezinka underestimates, from my point of view, the critical and rational capacity of the so-called common man. This common man may not be able to formulate what he feels, but he may feel more deeply than the learned. The Bible, at least, says so. He would fully understand what I mean by the "vague" term of "cosmic reverence" (p. 223) when he listens to the quiet breathing of his sleeping child, when he watches the blessings and menaces of his harvest, and when he contemplates before the face of a dead person. These events are themselves "symbols." If people were taught to understand their symbolic significance, they would not need miracles for the support of their religion. For those who can see, the world is full of wonder.

When, finally, Professor Brezinka objects that in my thought "Everything is related to everything else: the Old Testament to the Brahma, the Greek tragedians to Tolstoy, Confucius to Jesus, Socrates to Beethoven" (p. 222), then I answer emphatically: "Yes, I believe that everything is related to everything else." If life, besides all its beauty, were not so full of cruelty, I could speak with the mythical, yet so profoundly influential Christian theologian Dionysius the Areopagite: "*Ex divina pulchritudine esse omnium derivatur.*" But I certainly can speak with the great Nicolaus Cusanus, whose works have now been re-edited by a group of Catholic and Protestant theologians: "*In omnibus partibus relucet totum.*"

This does not mean that anything is the same as everything else, or that we should not have a hierarchy of meanings and a variety of cults and visible symbols. I have always emphasized the necessity of cultural and spiritual roots.

But our symbols will become idols if we fail to admit their inadequacy before the vastness of the universe. This, from my point of view, is the modesty we owe to the divine. Everything else is, from my point of view, arrogance. And this is not a new opinion. The notion of "negative theology," or of the namelessness of God, has been a part of Christian theology. And a growing number of Christian theologians begin now to understand—I hope not too late—that religion and agnosticism¹ are by no means mutually exclusive. The former, perhaps, cannot be authentic without the latter.

But it may be that in this respect Professor Brezinka and I are not so far from each other as his review seems to indicate.

ROBERT ULICH
Wellesley, Mass.

GOALS AND PROCEDURES IN COUNSELING.

To the Editors:

We appreciate the invitation to comment on the remarks that have been directed toward our paper, "A Behavioral Approach to Counseling and Guidance" [HER, Fall 1962]. It gives us the opportunity to affirm that we, too, are against sin and for virtue. Perhaps an occasion will arise at some future time which will allow us to philosophize in print about the real significance of human life and the values that man *should* live by.

We do not mean to be facetious, but at least part of the reaction to our paper appears to result from a failure to differentiate the *goals* of counseling from the *procedures* which may facilitate their attainment. Many of the authors of the Special Issue and some of the letter writers waxed eloquent about the nature of man and derived impli-

cations for the goals that guidance should serve. On the other hand, the behavioral approach that we presented made no attempt to suggest *what* should be learned in counseling. It attempted only to describe in a rather precise way *how* the learning occurs. We emphasized, in fact, that behavioral principles are relatively neutral principles that can be used by psychotherapists, counselors, and guidance workers of any theoretical or philosophical persuasion.

Man does not know, and perhaps can never know, the "real" nature of human strivings. We simply invent explanations that might account for the behavior that is observed. Some of these explanations, like the behavioral ones, have the desirable characteristics of being systematic, operational, and amenable to experimentation which may lead to further elaboration or to disproof. Some other explanations are so vaguely stated or so far removed from empirical observations that they can only be talked about in the same scientifically fruitless manner that natural philosophers before Galileo talked about Plato's "essences."

It seems significant that Professor Patterson ["To the Editors," HER, Spring 1963] says of operant conditioning, in the longer paper to which he refers, that "there is no question regarding its effectiveness . . ." ("Control, Conditioning and Counseling," *Personnel and Guidance Journal*, 16, 1963, p. 680). Unfortunately, we cannot make the same affirmative statement about the alternative counseling procedure that he finds philosophically more acceptable, and we find it difficult to sympathize with the confusion that results when procedures are confounded with irrelevant variables. For example, Professor Patterson agrees that some manipulation and control is implicit in all counseling. The use of such manipulation, however, is said to be contingent upon

the virtue and the objectives of the counselor. Manipulation by the pure of heart for the purpose of freeing the client so that he becomes a "responsible, independent, self-actualizing person" is acceptable; but manipulation leading to the same behavior "for the presumed good of the person being directed" is an intolerable and undesirable restriction of the client's freedom!

One may ask, perhaps, who selected the goals of freedom, awareness of choice, and responsibility as "good" goals? Was it the client's decision or the counselor's? One may ask, also, whether it is not sometimes possible to increase freedom by limiting some aspects of it? The controlled, limited-access superhighway which allows people to move freely and rapidly from one town to another surely limits the other directions in which they can travel and coerces them not to go in directions where the resistance of the natural terrain would reduce their freedom to move. The same may be true of many social conventions and counseling practices which simultaneously limit some behavior possibilities but, on the whole, increase freedom.

The dilemma is not only Professor Patterson's. The Special Issue abounds with references to attitudes that one should strive to develop in the client, procedures for influencing him, vague behaviors that will be encouraged, and consequences that will be manipulated. Paradoxically, the procedures recommended seem to be valued because their effectiveness is so low that clients may easily reject or ignore them; i.e., behavior is not controlled by them.

Behavioral engineers actually may have more respect for the freedom and autonomy of the individual than practitioners using some other approaches. In the ordinary case, where the client comes with a problem that troubles him or requires a decision, the traditional

therapist may often conclude that the presented problem is not the "real" problem or is only one symptom of a much larger problem and proceed forthwith to reorganize and rebuild the "basic personality structure." The behaviorally-oriented clinician is more likely to respect the client's independence and autonomy and restrict his efforts to helping the client solve the problem as the client sees it. In addition, in the special case where the client "doesn't want help," is "unmotivated" or "unresponsive," and is, therefore, considered inaccessible to many traditional helping procedures, the behavioral engineer has the tools to begin work immediately in the shared-control situation that always characterizes behavioral work.

Is the last phrase surprising? Let those who fear reinforcement procedures take heart. There is nothing so powerless as a behaviorist without an effective reinforcer, and the client (or even the rat) by responding or not responding to an attempt at reinforcement controls the subsequent behavior of the therapist as much as the therapist controls the client.

Finally, let Professor Super's ["To the Editors," HER, Spring 1963] working counselor take notice that some of the "what might be" of applying behavioral principles in guidance is becoming "what is." Krumboltz, for example, suggested that if the work of the counselor is valuable, it should have some measurable effect on the student. He concluded that one such effect is that the student will have learned how to make and implement decisions on a rational and informed basis. How then should the counselor act so as to facilitate such learning?

In interviews with a group of eleventh grade children who had not yet made a vocational or educational decision, Krumboltz and his colleagues reinforced with verbal social approval any

statement that the student would seek out information relevant to making a choice. A comparable control group did not receive special counseling. Two weeks after the interviews, a systematic and thorough evaluation of the degree to which the students had engaged in independent information-seeking behavior showed that the students who had received reinforcement counseling had engaged in the reinforced behavior to a statistically significant degree. (John D. Krumboltz, "Counseling for Behavior Change." Paper presented at annual meeting of the American Personnel and Guidance Association, April 1963.)

Other studies of the effects of reinforcement counseling and guidance undoubtedly are in the making.

LEE MEYERSON
JACK MICHAEL
Arizona State University

Is PROGRAMED
INSTRUCTION SOCRATIC?

To the Editors:

Mr. Jordan recently raised some objections to the use of the label "Socratic method" as a means of characterizing the techniques and objectives of programed instruction. [See James A. Jordan, Jr., "Socratic Teaching?" HER: Winter 1963.] We should like to argue that there are significant similarities between at least one of the identifiable methods of inquiry in the Platonic dialogues and the techniques of programed instruction often, but not always, employed by contemporary "educational programers." Furthermore, we see certain advantages in retaining the label if it is used with discretion.

We do not dispute the fact that there is a difference between an inquiry after truth and the objective of effective teach-

ing. However, it is reasonable and useful to assume that an effective method of inquiry after truth may prove to be an effective method of teaching. Furthermore, there is good reason for thinking that Plato used one of the forms of "dialectic" as a technique for leading a student to the truth and as a method of inquiry after truth.

It is important to recognize that Plato does not give the word "dialectic" a single meaning throughout the dialogues. In fact, there are three distinct methods, not just one, that can be referred to as dialectic or Socratic method. One of these is best characterized as *elenchus* which is found in the *Meno*, but is more prominent in the earlier "Socratic" dialogues. The second method is that of hypothesis and it is prominent in the middle dialogues, which includes the *Meno*. The third method, usually referred to as "collection and division," is prominent in the later dialogues.

It is the method of *elenchus*, which is typical of the early "Socratic" dialogues, that resembles certain features of programed instruction and identifies an approach to teaching.

"*Elenchus*", according to Liddell and Scott, means "cross-examining, a testing for purposes of disproof or refutation" (*An Intermediate Greek-English Lexicon*, 1955). It involves "examining a person with regard to a statement he has made by putting to him questions calling for further statements in the hope that they will determine the meaning and the truth-value of his first sentence" (R. Robinson, *Plato's Earlier Dialect*, 1953, p. 75). In the *Meno*, Socrates applies *elenchus* to a servant boy with the express purpose of assisting the boy in moving from the state of falsely supposing that he knows the truth to the state of recognizing that he does not know the truth. In the *Sophist*, *elenchus* is the purification of the soul which rids it of opinions that hinder learning.

The notion of teaching implicit in *elenchus* is similar to the notion of teaching which many of us attempt to apply in the classroom and in the development of automated instructional materials. This is the view that teaching is fundamentally a social process involving communication and interaction between at least two people, a teacher and a student. It is a kind of dialectic in which both serve as teacher and student at different times and at different levels. A teacher is not only instructing a student, but is also learning about that student, and using what he learns in making decisions about what to do next in the course of his teaching. Similarly, the student is not only learning, but he is providing information to the teacher which, in turn, guides the teacher in the ongoing interaction. We find this concept of a dynamic set of transactions between two people absent from Mr. Jordan's analysis of the Socratic dialogues. In addition, he seems to have a rather limited notion of the general concept of and possibilities for automated instruction.

If we are after an understanding of the process of teaching and the various methods for accomplishing it, such as programed instruction, then the use of the term Socratic method seems to have some merit. It is a convenient and objective way of specifying a general approach to both inquiry and instruction. We feel that this dual process is the heart of instruction and that Socratic *elenchus* is the original form and appropriate reference. This approach is explicitly attempted in programed instruction. It is in its form (or structure), not in its objective of teaching or discovering "truth" in the general sense, that the similarity mainly lies. It is in this sense that there seems to be justification in retaining the expression "Socratic method"; and, as Socratic in form, it has the additional advantage of guid-

ing one line of development in programmed instruction. This is not to say that all programmed instruction is of this form or must be of this form. Rather, the term should be used with discretion and, hopefully, by being so used, will cogently and clearly identify a form of

teaching explicitly designed to be a dynamic transaction between two persons wherein both serve as teacher and student.

LAWRENCE M. STOLUROW

KENNETH R. PAHEL

University of Illinois

Book Reviews

EDUCATION IN URBAN SOCIETY.

Edited by B. J. Chandler,

Lindley J. Stiles, and John I. Kitsuse.

Dodd, Mead & Co., New York, 1962.

Pp. 279. \$2.95 (paper).

Compulsory, universal, free education in the United States grew up in the period of mass immigration caused in part by a vast growth of industry. As Lawrence Cremin has pointed out, the need to deal with these impoverished, incredibly crowded millions in the growing cities was the prime force behind the movement to which Joseph Rice gave the name "progressive education." Progressivism, though its influence was slight outside the private and suburban schools, was in spirit an approach to "urban education."

Politically, compulsory free education was a left-wing phenomenon; indeed, if one examines the American wood-work carefully enough, one can still find some people who regard the public school as a socialist invention. Especially in the cities, the schools were

thoroughly meliorist in social philosophy. They believed, as Franklin Roosevelt put it in his speech on the fiftieth anniversary of the dedication of the Statue of Liberty, that the immigrants "came to us speaking many tongues—but a single language, the universal language of human aspiration." The schools were to make the immigrants' children not only Americans, but successful Americans. Education was the engine of social mobility.

During the first fifty years of this century, a mythology of "equal opportunity" was constructed around the American schools, especially the city schools. And there was enough reality within the myth to keep it plausible. What destroyed it was less the work of the sociologists than the experience of military service during and directly after the Second World War. Statistics from the Army examinations demonstrated that Roosevelt's depressed "third of a nation" was ill-educated as well as ill-housed, ill-fed and ill-clothed; and it was apparent even to the untrained eye

that the Army was immensely more potent than the schools, urban or rural, as a mechanism for social mobility.

During the last decade, evidence has been accumulating for the proposition that schools in American metropolitan areas no longer promote social mobility—that on balance they may even be acting to retard motion on the social ladder. Most visibly in the big cities, our schools are failing to give a viable twentieth-century education to the great majority of children whose parents fall below a certain income level, and particularly to Negro children. This fact is now rather widely known, as is the associated fact that the schools in "good" neighborhoods, with their allies in the degree-granting colleges, have been remarkably successful in maintaining into adult life the social class status of the children who pass through them.

With the destruction of the myth of equal opportunity, the category "urban schools" lost its significance. It had once been true that urban education was qualitatively different from rural education, a condition demonstrated by the extra selectivity the urban systems could afford when hiring teachers. Today there are many city schools offering an education as restricted and essentially ignorant as the education in the weakest of rural schools. The old frames of reference are no longer serviceable.

Education in Urban Society, a collection of sixteen essays by fifteen hands, performs one major function: it proves that there is no understanding to be gained, and a good deal of acuity to be lost, by considering the metropolitan area as an educational unit. One can talk sensibly today about a category of schools located in Pasadena, Clayton, Shaker Heights, and Newton, but not about a category of schools located in Bay Ridge and Bedford-Stuyvesant, Brooklyn. Mere propinquity, except within the neighborhood of the indi-

vidual school, has become largely irrelevant.

Several of the essays in this collection are damaged by their acceptance of the view that geographically convenient administrative fictions should be treated as real factors. Others are harmed by the notion that the term "urban society" is anything more than a coarse description (Switzerland and the United States are both "urban societies," and on the world scale they enjoy standards of living of about the same magnitude; but for most purposes lumping them together would be highly misleading). Yet others suffer from a lack of historical sense. Lindley Stiles, writing about "increasing mobility of population to and within cities; mounting costs of crime and delinquency; streams of rural folk flowing into slums to form ghettos [sic]; and unemployment growing with an expanding economy," seems to believe he is describing a new phenomenon. Actually, he could be quoting from any of fifty books written in the 1890s.

As is true in most educational discussions, the essays are interesting in proportion to the brute information they contain. Benjamin Willis's rundown of what Chicago is trying, though more than a little optimistic about the results, presents a valuable compendium of the best we now know enough to do. Matthew Pillard's summary of teacher recruiting efforts is disfigured by trivial errors. For example, it was Mark, not Frank Schinnerer who blasted the New York bureau of personnel; the big cities are certainly not "central to this national movement . . . in instructional content, methods and services," having followed the suburbs at a respectful distance throughout; NEA and AFT do not have different attitudes toward "salary programs that recognize and reward excellence in teaching," and such programs are not at present spreading in the suburbs; the Greater Cleve-

land program of educational research does *not* involve the city of Cleveland, and is thus irrelevant to Pillard's topic. But its rapid review of existing activities places Pillard's essay many cuts above the uninformative and uninformed jumble of jargon and simple-minded model-making in essays like Aaron Cicourel's "Administrative Science and Education in Urban Society" and Lloyd McCleary's "Intra-Organizational Administrative Problems."

Moments of breath-taking naïveté are scattered throughout the book. Lindley Stiles, for example, proposes as one of our urban financing problems the fact that "oil wells, mines, forests, and highly productive farm lands are not commonly found within the boundaries of cities"—as though any oil field of comparable extent (let alone a forest) had anything like the revenue potential of a midtown commercial center, as though the rural schools were better supported than the urban schools. Raymond Mack writes a whole essay on the effects of "The Changing Ethnic Fabric of the Metropolis" without mentioning that big-city Negro communities tend to have half again as many school-children as big-city white communities of the same numbers. David Minar suggests that "in suburbia" (*not* in the central cities!) "social and geographic community have ceased to coincide"; and he writes at length about community participation in school affairs without even hinting that such activity is typically greatest for parents of primary-age children and then recedes steadily as the child grows older.

Even the usually sophisticated Norton Long throws off an essay in which he proposes that metropolitan areas will develop "common institutions and common loyalties"—as though the common institutions of downstate and Chicago had created common loyalties in Illinois—and that these common loyalties

will somehow destroy "the present gross inequities in educational opportunity." B. J. Chandler, in the stupefying collection of clichés that serves as an introduction to the book (Chandler is capable of claiming, for example, that the school can "enable us to preserve and perfect democracy"), devotes seven of his 32 pages to "The Impact of Religion," mostly on the grounds that "religion is committed to working in behalf of a better world." How many of the social scientists Chandler calls upon to create an "interdisciplinary synthesis" for education (and how many theologians, for that matter) could read such a statement without wincing?

What is totally lacking from this book is any sense of the catastrophe that is overwhelming American central-city education. Our schools are not functioning well in any sense in the city slums, and as the slums become more and more exclusively Negro the visibility of the failure is increased. And we do not have any really promising ideas about what we can do to remedy the situation. The notion that something important might be accomplished by equalizing educational expenditures throughout the metropolitan area, stated or implied in several of these essays, is simply ludicrous. Educational expenditures have been equalized throughout New York City without narrowing the terrifying gap between educational accomplishment in outer Queens and in inner Brooklyn. Vocational schools have for years spent more money per pupil than other schools, with results that everyone knows. "Only through research," writes Lindley Stiles in his conclusion, "will the critical and multiple educational problems [the cities] face be brought to solution. Urban schools for the future must be centers for research and development, pioneers in school improvement, and leaders for quality in education." Noble thoughts, indeed;

but before we ask the urban schools for leadership, and before we launch this vague "research" effort, we should at least try to think up some ideas about how we might arrest the massive and accelerating deterioration of big-city education.

Measured against our need for ideas, *Education in Urban Society* is a distastefully trivial contribution.

MARTIN MAYER
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HIGHER EDUCATION:
RESOURCES AND FINANCES.
Seymour E. Harris.
McGraw-Hill Book Company,
New York. \$9.95. 713 pp.

There is a revolution of expectations in higher education. More students need more services. More students require more college and university teachers, and more teachers expect their salaries to be doubled in the next decade. Not only more teachers are needed, but more and better libraries, laboratories, classrooms, and dormitories.

These qualitative and quantitative expectations, it is hoped, will be financed with due regard for the fact that for the past fifty or sixty years educational expenditures have consistently risen faster than the Gross National Product. In short, it will be hard to get an even larger share of the national income to maintain and extend present standards of quality.

The revolution also involves an expected redistribution of services to students between the private and public institutions, for the latter are expected to increase enrollments much more rapidly. It is safe to expect that the new state of equilibrium between these two major institutions of higher learning

will substantially affect the possibilities for public and private support.

Traditionally the private college or university has been the elite institution and its public counterpart the egalitarian one. One important difference between them is in their approach to pricing services to students. Private institutions have subsidized tuitions by the use of endowment income and contributed gifts. The public institutions have been subsidized by tax monies. While the latter have had to raise tuition charges, their tuition will remain substantially lower than the tuitions of private institutions. A principal problem, then, for higher education is how to finance its operation, and Mr. Harris's book is a thoughtful analysis of this issue. He identifies what seem to him alternative solutions for the decade ahead. He agrees with almost all students of the field that the sources of funds for underwriting higher education are limited to students and parents through payment of tuition, government through grants, subsidies, and extension of credit, and private persons or corporations through gifts, including scholarships.

Harris is of the opinion that while it is proper to expect increased tuition charges and increased contributed support, and while it is proper to hope for increased efficiencies in educational operations, nevertheless substantial federal aid will be needed if the standards of opportunity and quality in higher education are not to deteriorate in the next decade. This is the same position that he has held in the past except that he admits in his book that he has been persuaded in the last two or three years that an effort should be made to maintain the low tuitions in the public universities so that the services of these institutions will be available to the largest possible group of students without respect to their ability to pay. In his view

the wisest and most appropriate use of federal assistance would be to extend to students a vast amount of credit for loans to meet the cost of their higher education.

One suspects that Harris is reaching for some solution that has a chance of success and achievement. Many private institutions have, as a matter of overt policy, long opposed federal aid, but at the same time, as a matter of covert operation, accepted such aid through grants for research and through long-term loans for dormitory construction.

Those who are full adherents to the welfare state principle may well claim that Harris's recommendations do not go far enough to solve the problems. Clearly his mastery of the facts of the situation is superb, and he is to be applauded for his effort to present these facts in a fashion that encourages a plausible political solution. But what sorts of federal aid to higher education are politically possible is still an open question. The rise of the junior and community colleges introduces a new force, the church-state issue is real, and above all, the collective lobbying voices of higher education lack choral harmony. It seems unlikely that the federal government can act to produce a program as tidy as the one Mr. Harris proposes in the face of the present sharp disagreement among educational groups.

What is particularly needed is for the private and public institutions—that is to say, the great private universities and colleges and the great state universities—to be able to speak with a single voice. Until this happens, plans such as those proposed by Mr. Harris are likely to remain blueprints, and we may look back at the decade of 1960-1970 and discover that the financing and resources of higher education followed the diverse and perversely competitive pattern of earlier years. The possible tragedy of

failing to agree on a system and order of things, as Mr. Harris so aptly points out, may turn out to be that the price of diversity and pluralism will have been a deterioration of quality.

JAMES P. DIXON
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TO BE OR NOT TO BE: THE NEW
AUGMENTED ROMAN ALPHABET
EXPLAINED AND ILLUSTRATED.

John A. Downing, with a preface by Sir Cyril Burt.
London, Toronto, and New York:
Pitman Publishing Corporation, 1962.
Pp. xii + 123. \$3.50.

Augmented Roman (A. R.) is an alphabet and spelling system devised by Sir James Pitman (grandson of the Isaac Pitman of shorthand fame) for the specific purpose of helping beginners learn to read. This slender book by John Downing, currently the director of an extensive experimental program in England designed to determine the practicability and effectiveness of A. R., is an exposition of the system and the reasons for urging its use.

It is argued that the traditional orthography (T. O.) presents beginning readers with two major obstacles: (1) the variation in the shapes of letters in capital, lower case, printed, and script forms (e.g. A, a, α, ἄ, α), and (2) the inconsistent relationship between the sounds of English and the letters used to write words. Because A. R. virtually eliminates these obstacles, it is claimed that children will be able to learn to read much more easily when it, rather than T. O., is used in reading materials. It is contended also that children who have learned to read A. R. will readily make the transition to reading, writing, and spelling in T.O.

A. R. is not proposed as a vehicle of spelling reform; indeed, it is pointed out that A. R. is far from the sort of alphabet that one might urge for this purpose, since it is designed as much to ease the process of making the transition to T. O. as to help the child in his initial steps in reading. For example, A. R. contains the characters s, z, and x. The letters s or ss are used in A. R. for all instances where the corresponding letters in the T. O. represent the phoneme /s/, as in sand, sun, casl (*castle*), bliss; the letters z or zz are used where the corresponding letters in T. O. represent the phoneme /z/, as in zebra, kwizd (*quizzed*), or jazz; but the characters x or xs are used for instances where s or ss in T. O. represent the phoneme /z/, as in daery, houses, poxeshon. These concessions have had the interesting result that text printed in A. R. is relatively easy and comfortable for the mature reader at first sight. A. R. is just what its name implies: *augmented* Roman, for 24 of its characters are identical to, and the added 19 show close resemblance to, those of standard type fonts. One wonders why Pitman did not utilize the traditional orthography even more. Why, for example, does he insist on spelling qu as kw when qu—at least in syllable-initial position—is one of the more regular spellings in English?

The way was prepared for Downing's experiment, which is in process at this writing, by the printing in A. R. of a widely used basal reading series and an impressive collection of children's literature. Teachers who were to conduct experimental classes were trained in the use of A. R., while teachers to be assigned to control classes were given refresher courses in the teaching of reading in T. O. by currently accepted methods. Tests in A. R. comparable to standard reading tests in T. O. were devised and are being applied at regular intervals. The preliminary results

of the experiment are said to be encouraging, but final conclusions will not be drawn until the experiment is complete and all the children involved have had an opportunity to make the transition from A. R. to T. O.

It is dangerous to make *a priori* judgments or prognostications concerning the outcomes of an experiment which is not yet complete. One feels reasonably safe, however, in predicting that this experiment will demonstrate that beginning reading in A. R. can proceed on the whole faster and more efficiently than beginning reading with the traditional orthography *conducted in the manner of the ordinary basal reading series*. A. R. is simpler than T. O.; there is less to learn. The transition to T. O. after a period of exposure to A. R. will doubtless be made quite readily by many children, more slowly by others. Whether the net effect will favor the use of A. R. as an initial medium for all children is a question answerable only by the research. It is conceivable that for some children the work with A. R. will be seriously harmful in its aftereffects. As matters stand now, the basis for Pitman and Downing's contention that the transition will be easy seems to reside largely in evidence from an odd and scarcely convincing source: a report in 1899 by a committee of the American Philosophical Society which summarizes the results of an experiment with "fonotypy," a precursor of A. R., conducted some 40 or more years earlier (1852-1860) in the schools of Waltham, Massachusetts!

The real danger that may ensue from the Pitman-Downing experiment, however, is that if it "succeeds" (as is likely), it may misdirect the attention of educators toward what Downing calls the "medium," i.e., the orthography, and away from other elements in reading instruction which may be more critical than orthography. The Pitman-

Downing experiment makes its comparisons solely, for understandable reasons, with control groups that are receiving conventional kinds of instruction. This aspect of the design should not lead us to overlook the possibility that there are less drastic and costly means of improving reading instruction than the introduction of a new orthography. One such means, I believe, is to modify conventional instruction in the direction of more attention to the systematic arrangement and progression of the early steps in reading instruction in the light of an analysis of the phoneme-grapheme correspondences of conventional spelling.

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THE URGENCY OF NEW LEADERSHIP IN HIGHER EDUCATION.

Glen C. Law.

Ivy-Curtis Press; Philadelphia, 1962.
123 pp. \$4.50. (Available through
Press-Tige Press, Box 237, Stamford,
Conn.)

In this little book the author touches upon most of the issues facing American higher education today. With utmost brevity he reviews the role of administrators, boards of trustees, faculties, alumni, students and other publics. In his preface the author comments that "it is a book of ideas that attempts to interpret, provoke, suggest, inform, and even entertain. No absolute solutions are offered." (p. v)

A recurring theme is that the basic problem of higher education is its relativity to society—that the weaknesses of society manifest themselves in the conditions of higher education. His own value judgment being supportive of liberal education, particularly in the humanities, he castigates what he finds to

be today's dichotomy of the sciences versus the humanities. Put in different terms, he deplores society's emphasis upon technology and material wealth, upon "specialization" at the expense of true learning, which is that "knowledge is all of a piece." (p. 4) Time and again he reiterates that the concept of "liberal" education is submerged by "vocationalism and specialization." (p. 5)

In his view, industry should train men in technology and vocationalism, leaving higher education to educate men in values and breadth. But in fact he feels, "The idea of learning for learning's sake, heavy on the humanities and light on the practical skills, has faded into obsolescence." (p. 8) Concerned over the recent attempt to broaden teachers colleges into liberal arts schools, he argues that this transformation has merely been a change of name, for in fact they are still trade schools, turning out inferior products, helping to perpetuate second-class citizenry.

Obviously the college president is the key to leadership. The author calls upon presidents for a clearly thought-out philosophy of education, well articulated and communicated to the various publics. Casting his vote for the scholar-president, he points out the limitations of authoritarian leadership, as against participative and cooperative approaches to solving problems.

Turning to boards of trustees, he recognizes their legal final authority and their "ubiquitous, ever-watchful eye." (p. 39) He emphasizes the desirability of free communication, of full trustee discussion of important educational issues, and asks that they take their powers seriously, while preserving a proper distinction between policy and administration.

Law finds that "The faculty is the true spirit of the institution," (p. 58) and recognizes that in most institutions faculties have accepted a position of consul-

tation rather than actual authority. While the author seems to favor wider faculty participation in educational policy-making he notes that more and more members resent committee work and meetings as an invasion of their research and consulting activities which are more directly related to personal and economic advancement. "The professor . . . has been caught up in the lemming-like pursuit of material wealth and social status and financial security." (p. 64)

As for students, the objective should be to develop individual self-reliance. The ideal environment would play down, if not eliminate, intercollegiate athletics and it would stress studies as against extracurricular activities. But recognizing that students have a superabundance of energy that is not exhausted in classroom and study, Law would not deny co-curricular "activities germane to and coalescent with the academic," (p. 80) such as debating, editing the campus literary magazine, etc.

Fearful that today's institutions emphasize false values, teach to the average and stress mediocrity, Law declares: "Education must find a way to release the individual, give him room to expand his initiatives and capacities, show him the falseness of the satisfactions with the mediocre, teach him the delights of the free mind." (p. 82)

This little book is an interesting summary of one man's views on what's wrong in higher education and what ought to be done about it. One finds himself agreeing with much that the author says, yet frequently questioning the authority with which it is said. The volume is so comprehensive, yet brief, that the author's views necessarily appear frequently in the form of bald "shoulds" and "should nots." Dogmatic statements or assertions always lead me to ask why? Although the author has listed a brief bibliography after each chapter, there

is not a single quotation from one of the works listed. There is almost a total absence of illustrations from the author's experience or that of others. As a result the work is extremely abstract and does not give the reader the warm feeling of having shared the experiences of a man closely associated with action on the firing line. Perhaps this was largely inevitable in a book so brief, but one wishes the author might have enriched his discussion occasionally by a quotation or an illustration.

For the reader who brings to his reading broad personal experience with the operations of American higher education, this little book will furnish much food for thought as to where we are and where we ought to be going. For the lay reader who has little personal knowledge of American higher education it will prove less satisfying, for he will not have the ability to read between the lines nor to understand the true import of the author's often profound, always tightly-packed sentences and paragraphs.

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ADOLESCENT ATTITUDES TOWARD
ACADEMIC BRILLIANCE.

Abraham J. Tannenbaum.
Teachers College Bureau of Publications, Columbia University, New York, 1962. xii + 100 pp. \$3.50.

This book is a report of a questionnaire study of adolescent attitudes. The study showed that juniors in high school ascribe dramatically more desirable characteristics to athletes than non-athletes and dramatically more desirable characteristics to "non-studious" types than "studious" types. There was no over-all difference in attitudes toward "brilliant" and "average" types. The most interesting findings were the

interactions between "athleticism," "amount of academic effort," and scholastic ability—the three traits exhibited by the hypothetical characters that the students rated. The brilliant, non-studious, athletic type was most esteemed by the students whereas the brilliant, studious, non-athletic type ranked lowest.

Students checked a list of fifty-four attributes for each of eight "stimulus characters." Each stimulus character was described in three sentences, one sentence for each trait. For instance, the brilliant studious, athletic type was described as follows: "Pupil A is a brilliant high school student who is always among the highest in class in all academic subjects. Pupil A spends more time at home studying school subjects and doing homework than do most students. Pupil A is sportsminded and participates in many athletic activities at school." (p. 85)

The list of attributes—which were selected on the basis of a pretest—appears to be loaded against the brilliant and studious types. The list contains nine undesirable attributes (e.g. "A brain," "A walking dictionary," "A book-worm") that are true of the brilliant or studious types if they are true of any of the types. There are only five attributes which adolescents regard as desirable (e.g. "Has good study habits") that bear an obvious relationship to the brilliant or studious types. There is not a single undesirable attribute obviously related to athletics, though such items should have been easy to construct. For instance the list could have contained the athletic parallel of item 40, "Braggs about his marks." The studious type was disadvantaged by an additional group of items. The pupil "who spends more time at home . . . doing homework than do most students" seems less likely on the face of things to be in many extra-curricular activities (item 49), to be

well-rounded (item 38), or to be sociable (item 29).

The difficulties in the questionnaire were magnified by the conditions of its administration. The questionnaire, requiring 432 responses, and a 20-item measure of verbal ability were both administered in a 45-minute class period. Moreover, "a forced-choice type of response was called for. . . . Some respondents did, in fact complain about . . . having to make judgment without enough clues from the descriptions. Others criticized the instrument because they had to make generalizations hastily and think in terms of stereotypes. . . ." (p. 30) The author has stated that the study aimed to elicit stereotypes. This one objective, at least, was achieved.

Three-way analysis of variance, involving repeated measurements, was employed in data analysis. There is serious question as to whether analysis of the variance of repeated measurements can ever yield unbiased statistics that are distributed like F . At the very least, the assumptions of homogeneity of variance and equal correlations among conditions must be met. Inspection of Table 1 (p. 93) and Table 7 (p. 98) and a little calculation showed that there were highly significant differences between variances and between correlations. To be sure, some of the effects were so powerful (the F ratio for the athletic-nonathletic effect was 1,316.56) that their presence cannot be doubted. There is, however, room for doubt regarding other effects, particularly the interactions.

The questionnaire study did not yield enough original data for a book, even a thin one. Perhaps some other medium of publication, such as a journal article, would have been more appropriate. The book contains a great deal of discussion of what the study might have showed if the sample had been different, what might have hap-

pened if the design or the questionnaire had been different, what the results may mean, what import the results may have for school administrators, what the study showed that might be useful to other researchers. It is a little annoying to read page after page of speculation and interpretation that goes beyond the data at hand, especially since several of the conjectures could have been partially checked by a reworking of the data. For example, the author speculates that "the desire of the brightest female students to be remembered for scholastic achievement declined during their four-year stay in high school, while the brightest male students' desire to be thus remembered increased over that period." (p. 67) Yet only total-sample correlations—all of which were near zero, incidentally—were computed between verbal ability and attitudes toward the eight stimulus characters.

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A HUNDRED YEARS OF EDUCATION:
A COMPARATIVE STUDY OF EDUCATIONAL
PATTERNS IN WESTERN EUROPE
AND THE UNITED STATES.

A. D. C. Peterson.
Second edition, revised.
New York: Collier Books, 1962.
320 pp. \$9.95 (paper).

This book by the Director of the Department of Education of Oxford University was not written for experts or specialists. The author has three groups in mind: "the general reader who wants to know something about the history of Education," busy teachers who "have no time to qualify as educational experts," and "students of education" just beginning their inquiry. (p. 7)

There are many reasons why this

work is important. To begin with, so far as the area is concerned with which it deals, it is comprehensive and synoptic. One can see the whole of the educational process as it moves forward in Western Europe and the United States during the course of a century. In a day when the stress is on specialization—so often with the resulting loss of vision, such a survey serves as a needed corrective. As Einstein warned, great discoveries are made only by that one who lifts "his nose above the grindstone of details" and seeks "a more comprehensive vision."

Closely related to the above is the fact that the reader becomes acquainted with significant educational developments in many countries—with most of the attention focused on England, the United States, France, and Germany. This panorama includes the following: outstanding tendencies in primary and secondary education; the relations of Church and State—together with special stress on the increasing control by the latter in many countries; "developments in theory and technique of teaching" (involving Pestalozzi, Froebel, Herbart, and Thorndike); "education for life" (both in terms of the evolution of the English "public school system"—including glimpses of that most famous of headmasters, Thomas Arnold of Rugby, and "John Dewey and the 'Progressive' Movement"); the education of women; and adult education. Special mention must also be made of two other matters, namely, the author's evaluation of intelligence tests, and his interesting account of the universities.

Unlike some critics, Peterson sees both the strong and weak points of American education. Chief among the former is America's challenge to the world in terms of democracy in education, that is, in its effort to make secondary education available for all—rather than merely for an elite destined

for college. He is also fully aware of "the influence of the great schools of education, such as Teachers College at Columbia" in bringing a measure of unity and order into this chaos. (p. 68) More than this, he appreciates the success of the "parent-teacher associations" together with "the pride" which small communities usually take in their schools—a pride which is "often quite surprising to the European." (p. 139) At the same time, however, Peterson makes three chief criticisms. First, in spite of the presence of the democratic spirit, sectionalism and the lack of unity and co-ordination have made for inequality together with a type of pluralism that has—at times—come close to anarchy and chaos. "Education was administered until very recently by about 150,000 different and independent school boards." (p. 75) Second, there has been altogether too much spent on physical facilities and far too little on obtaining good teachers. Third, American education has often been superficial and fragmentary. The elective system in the high schools together with "the specialization imposed in the graduate school at the other end of the process meant that it was possible for a man to leave the university with a Ph.D. in advertising, but a completely fragmentary education." (p. 227)

The book is not only well written, lucid, and profoundly stimulating, but the author also brings us back to certain basic humanistic principles which are easily forgotten in this age that boasts of its scientific objectivity. Among these is a genuine love for those taught. Closely related is Peterson's stress on the importance of the students and the value of good teaching rather than on costly buildings and equipment.

In spite of its excellence this book has certain limitations and deficiencies. For example, the book has virtually

nothing to say about the great social problems which plague twentieth century man—problems which the schools can ignore only at their peril. Chief among these are racialism, overpopulation, and—most urgent of all—the threat of nuclear war.

Yet this reviewer is more than glad to recommend this book. Now that it has come out in a paperback edition, it will undoubtedly attract widespread attention.

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THE PREPARATION OF TEACHERS:
AN UNSTUDIED PROBLEM IN EDUCATION.
S. B. Sarason, K. S. Davidson,
and B. Blatt.

New York: John Wiley and Sons, Inc.,
1962. 124 pp. \$1.95 (paper).

This book is very slim pickin's. A good portion of the text is devoted to endless repetitions of shop-worn criticisms of the education of teachers; e.g., traditional programs short-change the teachers in arts, letters, and sciences, but competence in these studies alone does not really guarantee a good teacher. Or, methods courses are poorly taught.

The "unstudied problem" referred to in the title and deplored in the text is "the absence of investigations which, starting with a detailed analysis of the teacher-learner context, evaluate different approaches to teacher training in ways that permit the drawing of conclusions other than on the basis of subjective opinion." (p. 15) And all this without even a nod to the fantastic difficulties surrounding such investigations. As a matter of fact, the authors seem to reconcile themselves quite quickly to the lack of this research: "In the absence of such studies we can only fall back on our experiences (and those of others) based on discussion with many

teachers, principals, and parents." (p. 4)

One may pass quickly over a chapter designed to provide "historical perspective on the development of teacher-training programs in this century." (p. 17) The historical perspective disposes of the American Revolution and the Civil War in one sentence of a paragraph that conjoins the Industrial Revolution and Jeffersonian and Jacksonian ideas of education. The nine pages following are devoted to a history of the normal schools.

After this preamble the authors review the debate between the scholars and the educationists. The position of the "scholars" is epitomized in citations from Admiral Rickover and the program of the Council for Basic Education. In a short volume that cries out for the editor's red pencil, this chapter cries out loudest.

After cutting through the underbrush about the ineptitudes of teacher education and the mismanagement of practice teaching, one finally arrives at the climax of the list of failings—the methods courses provided to prospective teachers. The high spot of this discussion is an excerpt from an evaluation session in which a group of future teachers are asked to evaluate the relevance of all their college learnings to their practice teaching experiences. Two salient impressions remain after a reading of this excerpt. The first is that the students judged their methods courses to be of poor caliber, principally because their professors stressed the "ideal" teaching situation at the expense of the real situations which they encountered in the schools. The second is that their professors (among them the authors) had neglected to teach the students that methods courses, whether focused on "ideal" or "real" classrooms, can never really be directly applicable to the actualities encountered in every new class. As William James told teach-

ers half a century ago, the intervention of a creative teacher is necessary. It is, however, the authors themselves who say what should probably be the final word about methods courses: "In and of themselves, methods courses for teachers, a favorite and legitimate target of critics of teacher-training programs, are not evil things."

The most commendable portion of the book describes the observation seminar designed by the authors to teach each student how to observe his pupils and how to become a "psychological diagnostician and tactician" of the classroom. A small special class of school children and their teacher were brought to an observation classroom at the university one morning a week for a period of nine weeks. The students observed the teacher and class in action and then met in seminar to discuss their observations.

The objectives of this instruction were well conceived: (1) to minimize the unconscious selectivity of the students' observations; (2) to point up the differences between observation of overt behavior and inferences about it; (3) to involve students in solving the classroom problems they were witnessing, instead of waiting for ready-made solutions from their instructors; and (4) to teach the prospective teachers how to say "I don't know," comfortably.

The students responded very favorably to their experiences in the observation seminar and gave evidence of having achieved, at least in part, some of the objectives set up by their instructors.

The concluding sections of *The Preparation of Teachers* are devoted to recapitulations and to recommendations for the improvement of programs of teacher education.

In sum, it would not be unfair to call this essay—for it should have been no more—an improvisation, an undevel-

oped theme. It is certainly to be regretted that the useful ideas in the book are almost concealed by excesses of padding and repetition.

A. D. Coladearci, who contributes the Foreword, characterizes *The Preparation of Teachers* as "a provocative little book." It should have been much more provocative or much littler.

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THE CENSORS AND THE SCHOOLS.
Jack Nelson and Gene Roberts, Jr.
Little, Brown, Boston, 1963.
208 pp., \$4.50.

As old, no doubt, as the written word itself, censorship probably had one of its first manifestations in Plato's pronouncement in *The Republic* that "The first thing will be to have a censorship of the writers . . . to accept the good and reject the bad." Here in the United States—within the past ten years—the problem of accepting the good and rejecting the bad as it relates to public school reading materials has been an increasingly disturbing one. It is to this latter problem that Messrs. Nelson and Roberts addressed their investigations.

Their book had its genesis at Harvard, in 1961, where the authors, both newspapermen (Nelson is with the Atlanta Constitution, Roberts with the Raleigh *News and Observer*), were studying under the Nieman Fellowship program. A suggestion that the two investigate activities of pressure groups that attempt to influence textbook selection and content led them to "a wealth of material which . . . has been given little attention by the nation's news media and magazines." (p. vii) Their research led them to discover also,

startlingly enough, that few books had been written on the subject—"none in the past quarter of a century." (p. vii)

Fortunately, *The Censors and the Schools* rectifies this shortcoming. It is a splendid book, a study which anyone at all interested in public education should read.

It is not a happy book; as a matter of fact it may not wholly please anyone, for it takes to task publishers as well as school administrators, and those who would have no censorship as well as those who apply pressure for censorship. But, disturbing as it is to one's complacency, it is precisely this thorough airing—this sketching of the anatomy of textbook censorship—that is the great virtue of the book. Yet, if this is not a happy book, neither is it an angry one. The authors sensibly remain unemotional; they write with a dispassionate objectivity that cannot be praised too highly.

Who, specifically, are the major proponents of textbook censorship? Nelson and Roberts list five and devote a full chapter to each. First is E. Merrill Root, a retired English professor and author of *Brainwashing in the High Schools*, who "wields more influence than any other man in the attempts of pressure groups to rewrite American textbooks." (p. 55) Then there are the Daughters of the American Revolution, distributors of *Textbook Study*, "an incredible report condemning one hundred and seventy books." (p. 75) Next is America's Future, Inc., a New Rochelle, New York, textbook reviewing organization, which since 1958 has issued "the most prolific nationwide propaganda barrage against textbooks." (p. 98) Perhaps the most remarkable organization of all is the recently formed Texans for America, led by the near-fanatical J. Evetts Haley. Last of the major forces is the Reverend Billy James Hargis's Christian Crusade, which operates an annual

"National Anti-Communist Leadership School."

The authors do not stop with an explication of the activities of the Big Five. Methods and results of minor (in a geographical sense only) pressure groups are thoroughly aired, with due emphasis on the N.A.A.C.P. and the Anti-Defamation League of B'nai B'rith.

These forces add up to a lot of pressure—more than most publishers and school administrators care to bear. Publishers are, quite naturally, anxious to reap a fair share of textbook profits and so are often reluctant to antagonize the power. (A notable example is the 1960 attack on textbooks by the Texans for America: only one publisher fought their charges face to face.) School administrators, one gets the impression, are simply guilty of dereliction of duty: "Many a superintendent of schools has quite naturally said to himself, if not to a bookman, 'I don't want a book that's under fire. It may get me into trouble and I don't need to look for trouble these days.'" (p. 179) The national news media come in for their share of the blame. During the Texas censorship battle of 1960 only one newspaper—the *Texas Observer*, an Austin weekly—carried a detailed account of the events and denounced the hearings.

Of what immediate concern to people of Massachusetts or Illinois (or, for that matter, any other state) is a textbook struggle in Texas? Beyond the obvious answer of an individual's "right to read" there is this sobering thought: Texas, as the nation's largest textbook consumer (some \$6,000,000 to \$10,000,000 worth annually) may dictate what goes into geography or history texts in Boston or Evanston. Publishers find it financially impossible to underwrite separate texts for the various states. Thus, if the Texans for America decree (as they have) that Dorothy Canfield Fisher and John Steinbeck or George

Orwell come off reading lists in the texts, they are eliminated. And if chapters place "undue emphasis" on the United Nations or NATO, for instance, the offending passages may well be rewritten to conform.

For example, one publisher made substantial alterations in a geography text at the insistence of Texans for America. This original version:

Because it needs to trade, and because it needs military help, the United States needs the friendship of countries throughout the world. But, to keep friends, a country must help them, too.

was changed to:

The United States trades with countries in all parts of the world. We are also providing military help to many nations. In addition, the United States aids many countries in other ways. (p. 130)

Beyond the problem of text alteration is that of outright rejection, certainly a more widely publicized occurrence. *Catcher in the Rye*, 1984, *Brave New World*, and *Lord of the Flies* are quite probably the four books most often banned from high school reading lists. They are, however, without a doubt four of the books most widely read by high school students today. Survey after survey has shown this to be fact; steadily mounting sales figures support the surveys. Yet unusual is the public school that condones the books; rare is the school that actually uses them in class. With these and other controversial books being read, the only comprehensible solution seems to be to discuss them in the classroom, with a competent teacher helping the students discover both the admirable and contemptible qualities. Certainly a Victorian snugness is not the answer; mature guidance is.

In fact, however, most school administrators much prefer to keep the con-

troversial out of the schools. In this attitude they largely reflect the thinking of the parents (or at least the more vocal of the parents), who seemingly permit their youngsters to attend high school not *really* to learn to make critical judgments, but merely to have their own shibboleths perpetuated in the minds of their offspring. No one likes to be reminded that he has failed; no one cares to have his mistakes broadcast publicly. Controversial books do just that—they point out just what fools we mortals often are. And what fools we mortals can be you will rediscover by reading *The Censors and the Schools*.

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THE CULTURALLY DEPRIVED CHILD.

Frank Riessman.

Harper & Brothers, New York, 1962.
140 pp. \$3.95.

The "culturally deprived child" is the current hit theme in the educational and social welfare arena. Frank Riessman, a psychologist, has been an active participant in this arena on behalf of such culturally deprived children. He is concerned with various ways of approaching the problem. In papers presented at the Department of Psychiatry, College of Physicians and Surgeons, Columbia University, in January and February, 1963, and in a paper given at the American Orthopsychiatric Association in March 1963 ("New Models for a Treatment Approach to Low-Income Clients"), Dr. Reissman urged psychotherapists to modify middle-class oriented treatment to accommodate lower-class patients; in *The Culturally Deprived Child*, the author urges teachers to change their middle-class attitudes and middle-class teaching methods in order to make greater prog-

ress with many of the children variously tagged "slow learners," "educationally deprived," "culturally deprived," or some similar designation.

The book is a ringing call to action on the part of the schools to tackle more realistically the one child out of every three in our urban schools who comes from such deprived background and it sets forth specific proposals to achieve such end.

The author first attacks the notion that the "culturally deprived" child is not interested in education and then proceeds to recommend teaching approaches which might be more successful than the traditional methods. He uses the term "culturally deprived" to refer to those aspects of middle-class culture—such as education, books, formal language—from which these groups have not benefitted. The author begins by decrying the emphasis on the non-school environment (neighborhood, parents, the child himself) as the central determinants of the failure to learn and attempts to refocus the school's program to the end that the school may make its maximum contribution to the education of such children.

The author contends that the so-called culturally deprived child is interested in education to an extent far greater than is generally realized. To capitalize on this desire for education, the teacher must understand the "culture" of the child, be dedicated to the task of assisting the child to make greater progress within the school, and be willing to change traditional teaching methods. The author draws upon studies as well as his own knowledge to demonstrate that such deprived children have assets which can be utilized if understood. They cannot reach their potential because of formal language difficulties; yet they display an inventive word power which, if understood by the teacher, can be used as a base upon which

to lead the student to more traditional vocabulary and concepts. The positive qualities of such children—their emphasis on manliness, the tendency to be physically and visually oriented, their preference for "practical" courses such as the three R's and science over music, art, and social sciences, their ability to cooperate—are assets which can be utilized by the effective teacher. To be effective, the teacher should recognize the fact that the children's values differ from hers, that she must break through formal cultural barriers, and that she must be able to identify with the underdog. Such a teacher can make great progress with deprived children.

The author then makes a score or more of practical suggestions involving re-evaluation of standard intelligence tests, attempting to discover "hidden IQ's," tolerance for slow learning, change in reading methods and development of new reading materials more attuned to the experiences of deprived groups, reorganization of teacher training, participation of teachers in PTA meetings, community centers, and other community groups, increased utilization of programmed learning, intensive research to learn more about the disadvantaged child, greater use of teachers from disadvantaged backgrounds, and a variety of other suggestions.

The author's so-called new approach may be summarized as follows:

1. A recognition of the educational deficiencies which result from the child's background.
2. Appreciation of the positive values and interests of such children as a basis for leading them into more advanced interests and education, and
3. A genuine respect and sympathy for the efforts of the deprived in coping with their lot.

To the sophisticated educator, the author's lack of a consistent educational theory or any overall conceptual frame-

work to tie his diagnoses to his proposed treatment, will be considered a basic weakness of the book.

Few will quarrel with the specific proposals made; most of them have been made before and they differ little from the usual recommendations which seek to improve our schools generally. Although in these specifics, the author has presented little that is new, he has dusted off some old ideas and presented some in current vogue in the context of his strong plea to apply these ideas to the solution of our schools' most serious problem today—the culturally deprived child. This may not be a "great" book; but it has a commitment and a message—a commitment to the deprived children and a message which says that something can be done about the problem. In a sense, it is an oversimplification of the problem and puts too much faith in what the schools can do. Those who are associated with such deprived children know that the simplistic answers will not work; that the schools did not cause "cultural deprivation," and, alone, they will not be able to solve it.

The attack on the problem of the culturally deprived children must involve all community health, welfare, education, recreation, and other agencies—each contributing to the problem which is growing as our urban centers increase in population, particularly in the numbers of minority and other disadvantaged groups. The schools' possible contribution has been vigorously presented in *The Culturally Deprived Child*, and the book will interest teachers, social workers, and others who are seeking to make progress in tackling the problem.

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WORLD PERSPECTIVES IN EDUCATION.

Edmund J. King.

Bobbs-Merrill Company, Inc., New York, 1962. 380 pp. \$3.75.

In a word, the scope of this book is *comprehensive*. In it, Mr. King touches upon the whole sphere of human activities, political, social, economic, religious, and considers an alphabet of topics from Adolescent growing pains to Zen Buddhism. Scarcely a land or people is missed as he circumnavigates the globe many times, picking up fresh supplies in every port he touches. A determined helmsman, he boldly steers for the "New World" of the improved human condition of universally educated men. King is no pure idealist though; he does not build dream upon hypothetical dream; rather he leads the way himself through the calm and stormy seas of the contemporary world. And he deftly charts a course for all to follow who would hope to secure "world perspectives in education."

Three currents run strongly through this book. First is Mr. King's concern to impart the "proper" temper of the comparative educator, including stern warnings of the pitfalls of parochialism and frequently urgent pleas for the necessity of adapting universal "perspectives." Second is his recognition of a "second stage of the Industrial Revolution—the phase of its social implementation" and the implications of this phenomenon for education, including what he sees as a logical need for centralized and more efficient planning. Finally, and most dominant, is a pervasive humanism which leads Mr. King constantly to evaluate the aims and results of present educational practices throughout the world in terms of the human conditions these foster or hinder.

Whereas his preceding book, *Other Schools and Ours*, was an "areas study" of six specific educational systems in

context, this book presents a "problem approach" in which any nation's or culture's educational practice is fair game for consideration as it specifically treats some universal phenomenon, e.g. mass education, selection procedures for further education, compulsory education, vocational education, teacher recruitment and training, etc. These two approaches, however, merge as Mr. King boldly insists that no educational problem can exist outside of the human context of a particular society in which it is imbedded. For instance, in discussing delinquency, he argues that "we must appreciate where indigenous people find the crux of the delinquency complained about." (p. 294) He gives the example of a Japanese movie used in an international seminar considering world social problems.

The whole film is a tragedy of family break-up and the frittering away of respect for authority—a great wrong. "But where is the delinquency?" repeated the Americans. They were looking for guns, gangs, drugs, robbery, rape, and killing. The idiom of delinquency varies. . . . Disrespect for parents and elders shown throughout the film described must have been a crescendo of shame for Japanese viewers; most foreigners did not notice that at all. (p. 294)

Similarly he shows how our use of convenient labels can confuse the issues of comparison as when he points out that part of what is called "higher education" in America, i.e. college work in business administration, journalism, nursing, engineering, etc. is only "further education" in European technical schools and is considered as neither "higher" nor "university" level training. Thus, comparative statistics which do not take such a consideration into account are, to say the least, inaccurate. In this way, throughout his work he constantly reminds the reader that "the

identification of familiar names and apparently familiar events in other countries with what seem to be their counterparts at home may be most misleading" (p. 246), and that to understand the educational problems of others in relation to ours, we must get out of our own "skins" and into the "skin" of others and see their problem with their eyes.

With constant repetition of such examples and of such fatherly directives to beware of chauvinism, parochialism, and culture blindness, Mr. King creates an embarrassing situation. One becomes most suspicious of any positive or negative feeling that one has with respect to the criticisms and arguments presented by the author in discussing various educational practices and values. Though the reader, prior to being strongly conditioned by reading this book to accept the cultural relativist's stance, might have wished to be able to vent his disagreements with some of the prescriptions offered by Mr. King, he has become so worried about and wearied by his narrow perspective that he may, for fear of his own blindness, hang up his armour rather than attack. For instance, when Mr. King argues that "as half [the world's] population is female and as most of them will not only marry but make marriage and maternity a responsible and enjoyable career, it follows that any system of schooling that leaves this fact out of account is a misfit" (p. 304, italics mine), the reader may wonder how Mr. King, after so completely establishing his cultural relativism and contextualism, can manage to utter such pristine certainties in universal and non-contextual form.

In all fairness to Mr. King, however, I would argue that more good than harm can come from this approach which demands continual searching and questioning of one's perspectives in viewing an educational problem or is-

sue. By far the greatest danger in our narrowed world is the narrowness of the people in it and as a singularly strong statement by an educator against narrowness of viewpoint, I have seldom seen a better one than that which Mr. King produces in this book.

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ADMINISTRATIVE PERFORMANCE AND PERSONALITY: A STUDY OF THE PRINCIPAL IN A SIMULATED ELEMENTARY SCHOOL.

John Hemphill, Daniel Griffiths, Norman Frederiksen.
Bureau of Publications, Columbia Teachers College, New York, 1962.

432 pp. \$8.00.

Presidential press conferences, Labor Department news releases, feature articles in Sunday supplements and special television programs have helped dramatize the vaguely intractable problem of unemployment. Less frequently dramatized are the problems of *underemployment* and what may be called *misemployment*.

Underemployment refers to those situations in which individuals hold jobs requiring less training and fewer or less complex skills than they possess. *Misemployment* exists in those situations where there is substantial incongruence between the social-psychological requirements and interpersonal demands associated with an organizational position, on the one hand, and the personalities and behavioral repertoires of incumbents on the other. The literature on underemployment is not abundant, and systematic empirical studies bearing on the "fit" of people and organizational positions are even more scarce. We therefore welcome this volume by Hemphill and his associates which re-

ports an investigation of the role of elementary school principal; a role that is embedded in an occupational field and is of undoubted strategic significance to the society.¹ Should misemployment be great in any of the vital positions in the nation's educational system, we may reasonably expect a "multiplier effect" complicating the already difficult task of preparing the nation's youth for the world of work.

Hemphill and his associates conducted their investigation in the tradition of the assessment school in modern psychology and have made an important contribution to the field of social-psychological measurement. Their investigation affords us an opportunity to compare their procedures and overall findings with those of others who have sought to comprehend the complex interplay among structurally given role-requirements, background characteristics, personality and performance, to draw some tentative conclusions about the state of research in this important area, and to identify those dimensions of the problem that remain problematical.

The objectives of Hemphill's research were threefold: (1) To develop concepts by determining the dimensions of performance of school principals, that describe their "administrative behavior." (2) To determine some measurable dimensions of performance in elementary school administration; to develop knowledge of the relationships of these dimensions to such other measurable characteristics of people as their

background, education, professional experience, personality, professional knowledge, job values and to link all of these to evaluations of principals made by their superiors and subordinates. (3) To provide materials and instruments for the study and teaching of school administration.

Since it was highly desirable to study the behavioral responses of school principals of standardized situations, the investigators constructed a simulated school situation (the "Whitman School" in "Jefferson") drawing upon a careful study made by the research staff of a school system and community. Test centers were set up in eleven cities between May 1958 and May 1959 and to each center came approximately twenty principals who were about as representative with respect to sex distribution, age, education and experience as a national sample of principals studied by the National Education Association in 1959. During the early part of a one week period the principals were made familiar with "Whitman School" and the suburban community in which it was located. They read the results of a community survey (made by staff interviewers), saw films purportedly made to acquaint prospective teachers with "Jefferson's" school system and viewed filmstrips accompanied by taped commentaries about the town of Jefferson. They studied documents describing the "Whitman School" faculty, staff handbooks, school board policy statements and by-laws, demographic and sociological information describing the community, and listened to tapes purportedly made without the knowledge of teachers, parents and the Superintendent of Schools as they discussed a variety of "Jefferson school" problems. The obvious purpose of this elaborate effort was to provide each of the subjects with an equal amount of basic information on the school and its setting, information

¹Indeed, an indication of the strategic significance of education to American society may be read from the estimate that one-fifth of the economic growth of the United States between 1929 and 1957 can be attributed to education. See "Investment in Human Beings," *The Journal of Political Economy*, Vol. LXX, No. 5, Part 2, October 1962.

much like that one might reasonably expect a competent school principal to have as part of his or her background.

Borrowing from the logic of business games, in which a variety of business problems are presented to the "player" in the form of items that might come through an executive's in-basket, the researchers constructed a series of complaints, requests, directives, questions, messages, advisory letters, and informational communications requiring administrative disposition. Case studies were combed for ideas and over 300 incidents were constructed. An advisory board of principals helped the investigators pare this number down to 96 incidents that closely resembled those regularly confronting school principals. The 96 incidents were allocated among "technical," "human," and "conceptual" problems in each of four areas of school administration: educational programming, personnel development, community relationships and the maintaining of funds and facilities. The incidents were placed in the 12 resulting combinations of problems and administrative realms in proportions that the advisory board felt was representative of the distribution of these incidents in a real school and were presented to each subject during the test week.

The responses (written statements, describing how the principal would handle an in-basket item, formulated under some considerable time pressure) were coded according to a set of performance categories that took account of the style of the action that principals said they would take and the substantive content of this proposed action as well. A factor analysis of the results yielded patterns that the researchers interpreted to be indicative of a relatively few basic types of performance. This made it possible to work with appreciably fewer dimensions of "in-basket performance" than would have been the

case had the investigators treated 68 categories developed for the scoring of in-basket incidents as basic data. Performance was similarly studied in response to both kinescopic and tape recorded incidents.

Individual performance scores (using the factors just mentioned as well as those derived from responses to the kinescope and tape recorded incidents) were correlated—in hundreds of pages of *meticulous* statistical reporting—with the results of paper and pencil measures of mental abilities, professional and general knowledge, basic personality factors, with categories describing awareness of instructional problems, personal job performance values, as well as with performance scores describing behavior in a small group situation, biographical information and the ratings of superiors and subordinates. The investigators report page after page of intriguing findings and the reader is encouraged to examine them in their rich and immensely complex detail. For present purposes it will suffice to point out that they did find a systematic relationship between different personality "styles," as they measured them, and performance patterns as measured from the responses to the in-basket, as well as to the kinescope and tape recorded incidents.

While this summary hardly does justice to the enormous labor performed by Hemphill and his associates—indeed I have scarcely hinted at the content of this methodological *tour de force*—it does point up some of the critical conceptual and methodological problems confronting investigators who seek to illuminate relationships among (1) job or "role demands," (2) personality and (3) performance.

Role demands. These were defined by Hemphill *et al* in terms of discrete tasks unique to school systems rather than in terms of tasks confronting ad-

ministrative leaders generally. Almost all other investigators concerned with personality and performance have taken a more synthetic and more general view of role-demands in organizational settings and they have also regarded the organizational or situational setting more systematically than did Hemphill and his colleagues with their tendency to see the school organization simply as a bundle of administrative tasks.

Stern, Stein and Bloom², in studies of student roles, personality and performance at the University of Chicago, defined role-demands as components of a social-psychological system and were able to characterize these role demands by translating discrete behavioral and attitudinal requirements into general and psychologically meaningful aggregations. Gilbert and Levinson³ examined the demands facing psychiatric aids by identifying implicit and explicit psychological themes globally descriptive of the overall character of three types of mental hospitals classified according to the conceptions of mental illness and of appropriate psychiatric care for patients prevailing in a given hospital. Conceptions of mental illness, in turn, were analyzed (in psychoanalytic terms) for underlying meanings that have alleged relevance for the characterization of other organizations. Thus these authors make much, e.g., of authority issues in organizations as potentially problematic for organization members, since these issues will find their expression in numerous day to day events and relationships.

² Stern, George, Stein, Morris and Bloom, Benjamin, *Methods in Personality Assessment*. Glencoe, Ill.: The Free Press, 1956.

³ Gilbert, Davis and Levinson, Daniel. "Custodialism and Humanism in Mental Hospital Structure and in Staff Ideology" in Greenblatt, Milton, Levinson, Daniel and Williams, Richard (Ed.), *The Patient and the Mental Hospital*. Glencoe, Ill.: The Free Press, 1957.

Chapple and Sayles⁴ have conceptualized role demands confronting people in a large variety of business organizations as interactional requirements. Thus they measure the various interaction patterns of people occupying positions impinging upon a particular person's organizational functions and define role demands in terms of the changing frequencies and duration of interactions confronting this person as he deals with numerous people over time. Their notion of interaction requirements would appear to have relevance for the study of role requirements in any organizational setting.

This reviewer, in a study of nurses in a general and a mental hospital⁵ found the work of Gilbert and Levinson helpful in developing a conception of role-requirements that made room (1) for the psychological demands generated by the existence of one or another modal personality type in the organization, (2) a series of psychologically problematic issues having to do with the organizations' authority structures and (3) the implicit and explicit organizational "rules" for handling impulses. These three aspects of organizations were conceived as part and parcel of the reality to which nurses had to reach an accommodation. Role demands were thus conceived in terms relevant to other organizations than hospitals.

Personality. While personality was

⁴ Chapple, Eliot and Sayles, Leonard, *The Measure of Management*. New York: Macmillan, 1961.

⁵ For a brief description of this investigation see my "Do Organizations Change People?" in Sayles, Leonard (Ed.), *Individualism in Big Business*. New York: McGraw-Hill, to be published in September 1963. A more detailed account may be found in Berg, Ivar, "Role, Personality and Social Structure: A Study of Nursing in a Mental and a General Hospital," unpublished Ph.D. dissertation, Harvard University, 1960.

measured differently in each of these studies, an effort was made in all but the Hemphill study to identify personality components of particular relevance to the role and role demands studied, to link these role relevant personality components to total personality (by drawing upon a theory of personality) and to develop novel techniques for measuring these role-relevant traits. Thus Stern, Stein and Bloom identified three personality types appropriate, on carefully reasoned theoretical grounds, to the roles for which students were in training, and the investigators anchored these types in psychoanalytic conceptions of personality. These types are identified from responses to pencil-and-paper questionnaires. Chapple and Sayles identified several personality traits by making detailed observations of behavior in interviews, that confronted subjects with a variety of interpersonal situations purportedly typical of those found in business organizations. Their traits are derived from a selective interpretation of modern learning theory. Gilbert and Levinson identified one major dimension of personality that, according to their interpretations of investigations of authoritarian beliefs and the psychoanalytic theory, lies close to the core of personality. This dimension was measured by the California F Scale. This reviewer also used this instrument in his study of nurses along with two pencil-and-paper questionnaire-type measures of impulse acceptance. Psychoanalytic theory provided both the content of these scales and the interpretation of the data they provided.

Hemphill and his associates used Maslow's Sixteen Factor Personality Scale, but provided no discussion of the relevance of the sixteen factors to the role they were studying and no discussion of the theory of personality that guided their thinking about this research variable apart from an implicit

acceptance of Maslow's own theoretical thinking.

Performance. Each of these investigations confronted the problem of studying performance differently. Stern, Stein and Bloom used academic achievement and the evaluations of teachers to determine the performance profiles of their subjects. Gilbert and Levinson did not actually measure performance. Rather they made gross qualitative judgments about the allegedly modal behavior of the entire population of the organizations they studied, and with which they had had long experience, with respect to power relationships, organization roles and decision making activities. The reviewer in his study constructed a series of incidents from a year long period of participant observation and had peers among the nurse subjects make judgments of each other's behavior using four (precoded) descriptions of behavior (in response to each of eleven incidents) derived from the behavior patterns observed in wards, in operating rooms and elsewhere in the hospital. Chapple and Sayles employ the interaction chronograph, a mechanical device patented by Chapple, to record the frequency and duration of responses of their subjects to a "stress interview" during which the interviewer changes his interaction pattern at predetermined intervals. Hemphill and his associates, as has been reported, measured performance by gathering written responses to typical school incidents. If we accept the in-basket test experience of respondents as equivalent to an actual confrontation with the same incidents then we may point to this methodological innovation as a most significant contribution to the study of the "fit" of people and positions. There appears to be no reason why the in-basket technique could not be used in the study of other roles once we are sure that people respond to in-

basket and real situations in approximately the same way in terms of the style and content of their behavior. In fact it is difficult to believe that the investigators could not have analyzed the responses to the in-basket incidents with greater psychological depth so that the role demands confronting the school principal could be seen at the same levels of generality as the role demands described in the other studies mentioned. One can only guess at the results they would have obtained had the researchers performed a psychological-thematic examination of the role-demands they identified and then related the performance categories, similarly analyzed, to the personality factors they studied.

In each of the studies there was found to be a correlation between particular personality types and particular performance styles. With the exception of Hemphill *et al* each study conceived of role demands in the same psychological terms that the researchers used in discussing and measuring personality as a variable. Hemphill and his colleagues apparently saw no need to discuss personality and role demands "in the same language" and so while they have made highly interesting contributions to the methodological problem of studying performance they have contributed frustratingly little to theoretical and conceptual continuities in social scientific research on the interrelationships among role demands, personality and performance.

By taking little account of the embeddedness of the school principal's role in an organizational matrix and by treating role demands as discrete tasks with little thematic analysis they have helped sharpen our awareness of the methodological and conceptual advantages of the other studies reviewed. All of these have more general applications to the problems of the congruence and

incongruence of people and their occupational roles than does the Hemphill volume. At the same time it should be noted that the more generally applicable models for research derived from the earlier studies may not, with the possible exception of Chapple and Sayles' approach, be especially useful to the parties responsible for recruiting people to particular positions. Hemphill and his colleagues have developed some imaginative techniques for the selection of people whose misemployment could be more than a little costly to this country.

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EDUCATIONAL GOALS FOR AMERICA.
Norman Woelfel.
Public Affairs Press, Washington, D.C., 1962. 167 pp. \$3.75.

As the author says in the Foreword, this book is a "loosely structured and deliberately repetitious organization of diagnoses, principles and prescriptions." Such honest self-evaluation is disarming and, in this case, all too accurate. The value of the book is to be found in the diagnoses, principles, and prescriptions.

The diagnoses sound simple, "How different are we?" (p. 1), "Is public education failing us?" (p. 3), and "Can we lift ourselves by our own bootstraps?" (p. 3). Without reading further, one can surmise that the suggested answer will be yes. It is then a matter of the prescriptions the author will propose for these diagnosed ailments, and in most chapters he merely raises more questions and emphasizes the importance of learning. There is, however, some confusion and incompatibility between education for democratic ideals

and education for the needs of industry.

The specific educational problems of today and tomorrow are listed as questions. Some of the answers, which are to arise from a fuller realization of democratic cultural goals, are briefly outlined before new dimensions in teacher education are presented. The dimensions are not new or comprehensive; they may be found in many books and articles. The author has collected and presented some of them, with commentary.

Why the nature of the physical environment for learning follows four chapters on new dimensions is not at all clear; neither is a restatement of the aspects of permanent learning, unless

the book was intended to end there. The author also takes a whirl at learning machines in about the same way that he treats his other topics. He has some of the facts and presents them in a rather obvious and readable fashion; but he could have been much more accurate with a little additional effort. For instance, the term "learning machines" is descriptive of only one limited phase of programmed instructional materials. The reader is left with the uneasy feeling that the comments on goals are similarly partially developed and incompletely expressed.

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Since the 1954-1955 Supreme Court decisions, school desegregation has posed problems of increasing urgency for American education. The author examines the nature and current status of the major legal defenses against desegregation and discusses issues of judicial interpretation which remain unresolved.

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Equity Power and the School Desegregation Cases

THE LAW OF CIRCUMVENTION AND IMPLEMENTATION

Political scientists and legal scholars have long since abandoned the notion that the federal court system consists of a coterie of detached men standing impassively above the conflict of the political arena majestically discovering the law and applying it.¹ The early scholarship of Holmes, Cardozo, and Pound first helped to fashion the insight that the courts are deeply immersed in the interests, claims, and demands that typically have their focus in the political process. And the more contemporary behavioral studies of Pritchett,² Schubert,³ Schmidhauser,⁴ and others have extended our understanding of the motivational factors which judges carry into the decision-making process. If, as Lasswell's catch-phrase suggests, politics is truly the determination of "who gets what, when, and how,"⁵ then the federal courts have a preeminently political role to perform. For in their equity capacity they are engaged in the delicate task of considering and adjusting the competing claims of individuals and groups in the larger society in accordance with developing or well-settled rules, principles, and precedents.

The role of the judiciary in the decision-making process of the nation has been no more amply demonstrated in recent times than in the School Segrega-

tion Cases of 1954-55.⁸ Here the Supreme Court was concerned not simply with the task of measuring state enforced school segregation against the "equal protection" and "due process" standards of the Constitution. More significantly, the court sought to balance the interests of the respective parties in a fashion consistent with an evolving legal theory which had been moving away from the "separate but equal" principle⁹ for almost two decades.⁸ While decisively destroying that principle, the court concluded that a school system based upon the institutionalization of racial differences could not be reformed immediately. To the contrary, it was assumed that it would be necessary to eliminate a variety of obstacles in making the transition to non-racial school systems, and that the magnitude of the problems involved would vary from community to community. The cases were therefore remanded to the lower federal courts with instructions that desegregation proceed "with all deliberate speed" toward eventual "good faith" compliance. Consonant with the classical tenets of equity jurisprudence, these tribunals were to perform the delicate task of reconciling the private rights of prospective Negro litigants with the public interest while maintaining a reasonable modicum of administrative efficiency and community peace. In effect, the courts were to determine the structural framework within which desegregation policy could be developed and implemented at the local level.

Reactions to this new departure of the court varied. While some of the southern or border states took steps to adjust to the edict, the response of the greater preponderance of the former Confederate states has been rather aptly summarized in the phrase "massive resistance." These states have viewed the decision as a usurpation of powers reserved to them by the Constitution, and have claimed a moral right to resist by every "legal means." But legal resistance was much more than an oratorical euphemism; it became the hallmark of southern legislative action and reflected the active hopes of a sizable segment of the white population.⁹ Moreover, as subsequent litigation was to reveal, southern legal efforts to block desegregation in the courts opened a virtual Pandora's box of questions about the meaning and scope of the *Brown* decision. The purpose of the present article, therefore, is to examine the nature of the major legal defenses against school desegregation,¹⁰ the way these have affected the shaping of equity principles by the federal courts, and some of the continuing problems of judicial interpretation which still remain unresolved.

THE POLICE POWER AND IMPENDING VIOLENCE

The spirit of implementation prescribed in the *Brown* case was one of gradualism. While mere disagreement with the court's edict could not be construed as grounds for maintaining segregation, the *Brown* decision did seem

to imply that the public interest in the orderly administration of the schools could, during an unspecified transitional period, outweigh the personal interests of Negro plaintiffs. Although the various specifications for delay in implementation¹¹ did not include those occasioned by the possible eruption of public violence, some believed that these specifications were not exclusive of all others. Consequently, on several notable occasions, local officials have sought to forestall desegregation on the premise that state police powers authorized them to protect the public from the violence and disorder likely to follow in the wake of desegregation.

The police power is one of the concurrently exercised powers of the Constitution which has never been reduced to a precise legal formula. Mr. Justice Reed once loosely defined it as "the duty . . . to protect the well being and tranquility of the community."¹² But whatever the breadth and flexibility of the police powers, it is clearly limited by the "equal protection" requirements of the Fourteenth Amendment. The long line of racial zoning cases, beginning in 1917 with *Buchanan v. Warley*, are ample authorities for the proposition that states may not use their police powers to maintain racially discriminatory practices.¹³ Consequently, it is not surprising that this rule has been extended to the school desegregation cases. In the New Orleans litigation the Fifth Circuit Court of Appeals summarized the controlling principles as follows:

The use of the term police power works no magic in itself. Undeniably the states retain an extremely broad police power. This power, however, as everyone knows, is itself limited by the protective shield of the Federal Constitution.¹⁴

This view was further reinforced by the Fifth Circuit in *Jackson v. Rawdon* when the court declined to permit the Mansfield, Texas school board to defer the formulation of a desegregation plan because of the possibility of public disorder.¹⁵ But the Supreme Court holding in the Little Rock case is perhaps the most forceful judicial pronouncement on this point to date. After finding that the Governor used his powers to encourage disobedience to the desegregation decrees of the lower federal tribunals, the court proclaimed: "The constitutional rights of respondents (Negro plaintiffs) are not sacrificed or yielded to the violence and disorder which have followed upon the action of the Governor. . . ."¹⁶ The police powers of the state, said Chief Justice Warren, could not be employed to deprive Negro children of rights protected by the Constitution. The conclusions of the *Little Rock* case were subsequently cited as the basis for decisions of the district courts of Virginia in *James v. Almond*,¹⁷ where the governor closed the Norfolk city schools, and *James v. Duckworth*,¹⁸ where the Norfolk city council sought to withhold funds for the operation of schools to which Negro pupils had been assigned. It is clear, then, that the use

of the police power as a tool for preserving school segregation has no standing under federal decisional law.¹⁹

GOOD FAITH COMPLIANCE: THE PREVAILING CONFUSION

While the utilization of the police power has been unequivocably discredited as a basis for delaying desegregation, there has not been uniform agreement in the courts as to what constitutes "good faith compliance" with the *Brown* decision. Where it is clear that a local school board has done nothing to alter its fixed policy of segregation, the affected Negro children are usually entitled to an injunction restraining the board from future exercise of this policy.²⁰ Beyond this, however, federal tribunals have interpreted the standard in a variety of ways. In Virginia, the courts have defined rather narrowly the responsibility of the school boards to effect desegregation. In the leading case, *Thompson v. County School Board of Arlington*,²¹ Judge Bryan ruled that the school board was not required to undertake a "general reshuffling of the school system." So long as no child was prevented, solely by reason of his race, from attending the school of his choice, the board had fulfilled its obligation under the relevant decisional law. This rule, which was subsequently adopted in the Norfolk case,²² assumes that the opinion in *Brown* required school boards to fulfill a negative duty rather than assume a positive obligation. In short, the proscription was against discrimination but not necessarily against segregation if it could be maintained without discrimination. Consequently, some school boards have preserved segregated school districts permitting transfers on an individual basis only. All children are routinely assigned to the schools commonly designated for their race. Integration is thereby limited to those Negro children who expressly undertake to qualify under the various assignment plans which, ostensibly, are nondiscriminatory.

The failure of the Supreme Court to determine in precise terms what constitutes adequate compliance with the doctrine of the *Brown* decision has lent some plausibility to this practice. While the decision seems to forbid both "segregation" and "discrimination," it is certainly possible to argue that where the school authorities have developed a plan by which individual Negroes can assert their rights on the basis of qualifications unrelated to race, the board is no longer committed to either policy. And if the rejoinder is made that such a procedure amounts to nothing more than selective non-discrimination, the obvious retort would be that constitutional rights are personal and that the school authorities have provided a way to gain them. The courts, it could be said, should not safeguard the rights of those who for one reason or another forego them.

The decision of the Supreme Court upholding the opinion of a three-judge

tribunal in *Shuttlesworth v. Birmingham Board of Education*²⁸ has been frequently cited as the authority for the proposition that the *Brown* opinion prohibits discrimination rather than segregation. It is somewhat doubtful, however, that *Shuttlesworth* can be stretched this far. The lower court's ruling was sustained on the expressly narrow ground that the Alabama pupil assignment law was not unconstitutional on its face. There was nothing in the act pointing to race, and the record of the case in the court below disclosed nothing to indicate that the Negro applicants had been rejected on this ground. Seemingly, all the Supreme Court was saying was that the law in question could lend itself to a use which was in accord with the requirements of *Brown*. This still leaves unanswered the crucial question: Is there an affirmative duty on the part of school boards to move toward the total elimination of all segregation requirements, or is it enough if the authorities merely provide an escape hatch through which those Negroes who elect to do so can secure a non-segregated education?

The Supreme Court itself has, to date, elucidated the standards of its 1954 opinion only in *Cooper v. Aaron*, the Little Rock case, which dealt primarily with the significance of impending violence as a bar to desegregation. The court nevertheless offered some important clues as to its future expectations. At one juncture, the decision charges the district courts with the responsibility for approving school board plans "... pointed toward the earliest practicable completion of desegregation...." At a later point, in language which is substantially stronger, the lower courts were expressly directed to require that local school boards proceed "diligently and earnestly... to eliminate racial segregation from the public schools."²⁹ Indeed, said the court, nothing short of this could satisfy the "good faith" standard of the *Brown* decision.

Since the Little Rock opinion dealt largely with the problem of violence rather than with the clarification of the standards on which full compliance could be judged, the foregoing allusions can perhaps be dismissed as nothing more than dicta. But subsequent decisions in both the appellate and the district courts suggest the inference that if the language of *Cooper v. Aaron* is indeed dicta, it is no less vital as a clue to what the Supreme Court intended in its 1954 decision. For increasingly it is the position of the lower courts that school boards must undertake affirmative action aimed at eventual system-wide desegregation. In the Nashville desegregation cases, the district court approved a plan calling for the desegregation of one grade each year after expressly rejecting a school board proposal to maintain a dual system of segregated and integrated schools to which children would be assigned in accordance with parental preferences.²⁶ Similar plans have been sustained in Knoxville, Chattanooga,²⁷ Atlanta,²⁷ Houston and Dallas.²⁸

Perhaps the most sweeping pronouncement on the meaning of the *Brown*

decision since the *Little Rock* opinion of 1958 was made by the Third Circuit Court of Appeals in July, 1960. Here the court vacated a previously approved plan calling for the desegregation of Delaware schools over a period of twelve years. After finding that the plan was unnecessarily slow, the court concluded that if it was not "drastically modified, a large number of Negro children of Delaware will be deprived of education in integrated schools despite the fact that the Supreme Court has unqualifiedly declared integration to be their right."²⁹ The court, accordingly, disapproved of the plan "insofar as it postpones full integration."³⁰ The court below was instructed to enter an order immediately admitting the Negro plaintiffs to the schools of their choice and directed the Delaware Board of Education to submit a new plan "which will provide for full integration of all grades of the public schools of Delaware commencing with the fall term 1961."³¹ The broad character of this decision is evident. It asserts that school boards have a positive duty to remove all segregation requirements and leaves only the time and the manner by which this end is to be consummated for judicial debate.³² Yet, the seemingly contrary view of the courts of the Fourth Circuit as expressed in the Virginia decisions still signals the need for further clarification by the Supreme Court.

PUPIL PLACEMENT PLANS: CURRENT PROBLEMS

Another set of legal problems arise from the enactment of so-called Pupil Placement laws in the southern states since 1954. These laws have been generally designed to delay the effective date of desegregation and limit the number of eligible Negroes to token proportions. While the assignment criteria in the various plans cover a wide range of administrative, educational, "psychological", and "cultural" factors,³³ the courts have generally accepted only those standards which relate to residential location and academic achievement. But the application of both these criteria has generated considerable legal controversy.

On the face of it, the requirement that a student attend the school located within the district where he resides does not seem very controversial. This has been an accepted practice of school boards throughout the country for generations. However, a problem does emerge where school authorities continue to maintain overlapping *de facto* Negro and white districts. Under these circumstances, the admissibility of an otherwise qualified Negro student to a white school has, up to now, turned on which school was closest. At the same time, all white pupils are admitted to the particular school in question even though they might not live any closer to that school than the rejected Negro applicant. While complaints were levied against this practice in the Norfolk cases, the district judge upheld the school board on the ground that it could be justified

by the requirements of gradualism and the need to balance private and public interests.³⁴ But in a decision promulgated by the Charlottesville court, such a practice was flatly condemned as discriminatory.³⁵ The conclusion seems to be, therefore, that such expedients are at best only temporarily successful.

A weightier problem arises from those placement plans which eliminate racially defined school districts but permit pupils to transfer from schools in which members of the opposite race predominate. The net effect of such permissive transfer rules is that schools tend to remain segregated. In four years of operation in Nashville, all white children assigned to schools predominantly Negro in enrollment have received transfers to white schools thus maintaining the racial character of the Negro school. Moreover, since the plan does not permit the Negro child attending a school within the same residential area to transfer to a white school outside the district, he has no effective defense against segregation.³⁶ Plans incorporating the Nashville permissive transfer provision were nevertheless upheld in Knoxville,³⁷ Davidson County, and Chattanooga, Tennessee,³⁸ and in Warren County, Virginia.³⁹ But in the *Dallas* case, the U. S. Court of Appeals for the Fifth Circuit disallowed similar transfer provisions "because . . . (they) recognize race as an absolute ground for the transfer of students, and . . . (in) application might tend to perpetuate racial discrimination."⁴⁰ Finally, in June, 1963 the Supreme Court decided the Knoxville and Davidson County cases on appeal and found such transfer practices unconstitutional.⁴¹

A third problem arising from school zoning procedures emerges from attempts to maintain segregation by gerrymandering school districts. The legal controversy which is engendered by such practices is likely to have special significance for school segregation in the North because this device has proven politically more expedient than the more direct methods traditionally employed in the South. The decision of the federal court in New Rochelle, New York is a case in point. After finding that one-third of all Negro elementary school students were assigned to a single school, the court flatly charged the school board with deliberately drawing the school boundaries to follow the growth patterns of the Negro population. This practice was enjoined, and in a subsequent order the New Rochelle school board was directed, as an interim solution, to permit Negroes to transfer to other schools where space was available.⁴² If this decision is adopted by other lower federal courts and ultimately the Supreme Court, it could have far reaching implications for school desegregation throughout the country.⁴³ To date, at least, it implies an obligation on the part of school boards everywhere to draw district lines which ultimately provide the maximum desegregation consistent with the reasonable allocation of available schools, without regard to racial housing patterns. Whether the courts will move even further and give the goal of desegregation precedence

over the "district line" (or neighborhood school) principle is still a matter of sheer speculation. But what does seem to emerge is the fact that the *de facto* concentration of Negroes in a few selected schools will afford a basis for inquiring whether a school board maintains a constitutionally acceptable policy of school districting. And under the governing categories of the *Brown* decision, the burden of proof will rest with the school authorities.

Another problem arising out of the application of placement plans is the practice of limiting desegregation to those Negroes who score at or above the national median on standardized achievement tests. This is bound to be a matter of continuing concern for parents, the courts, and the school authorities. For the available evidence seems to suggest that while Negro pupils in the South can be found at every level of achievement from the lowest percentile ranges to the highest, a larger percentage of the Negro pupils show up poorly on standardized achievement tests.⁴⁴ Various reasons have been advanced to account for this fact including inferior Negro schools, poorly trained Negro teachers, lack of motivation, and depressed socio-economic circumstances. As a result, the white community generally regards any large influx of low achievers into the schools as the precursor of declining academic standards. On the other hand, the Negro community, unavoidably aware of the past history of segregation, finds it hard to believe that academic standards can be substantially raised as long as separate schools are maintained. Where the dual system has been established, it is argued, the tendency has been to promote relatively high standards in the white schools, leaving the Negro schools to their own devices. In the face of this impasse, the crucial role of the courts is to somehow balance the interests of the two communities.

Assuming that there is truth on both sides of this issue, some school systems have tried to meet both arguments at once. While effecting across-the-board immediate desegregation, they have protected against the danger of lowering academic standards by grouping students according to ability. This program, widely known as the "track system,"⁴⁵ makes it possible for the superior Negro student to experience competition with other superior students, an opportunity of which he is largely deprived in a segregated school. Likewise, since the system makes it possible to concentrate upon the specific difficulties of the "low achiever," he has an opportunity to improve his academic performance and move up into a higher achievement grouping providing he has the requisite ability. This seems to be especially so where Negro children are admitted to desegregated schools at the first grade level. A study of Negro migrant children in Philadelphia showed that while these children were quite retarded in the first grade, by the sixth grade they had removed most of their deficiencies.⁴⁶

While such cities as Washington⁴⁷ and Louisville⁴⁸ have made use of the "track system" as a means of securing maximum benefits for Negro children

without endangering the standards already existing in the white schools, this is not the approach likely to be followed in many southern communities in the near future. The prevailing approach is to limit integration to those Negroes who, on the basis of the standards established, appear to be academically qualified, and who actively seek the privilege. This approach, however, is not free of legal difficulties. One of the major problems concerns the appropriate academic standard to be applied to the Negro children. Generally, achievement is measured by a test standardized on the basis of national norms. While it is generally known that Southern children, white and Negro, tend to score lower on these tests than non-Southerners, the usual practice is to require that the Negro applicant for a white or predominantly white school approximate the national median score, that is, the fiftieth percentile. However, there is already some authority for the proposition that the Negro child cannot be held to a higher standard than that actually attained by the white children in the grade he seeks to enter. In a 1959 decision in *Thompson v. County School Board of Arlington*,⁴⁹ Judge Bryan, under the prodding of the Court of Appeals,⁵⁰ reversed an earlier holding and admitted eight Negro children who had been previously rejected because their academic achievement did not meet the board's standard. It was the court's judgment, upon reconsideration, that where it could be shown that the Negro pupil scored no lower than the poorest white students in a particular grade, he must be admitted if otherwise qualified. In December, 1961 this view was embraced by Judge Paul in the *Charlottesville* case.⁵¹ But in the *Norfolk* case the district court continues to rule that Negro applicants for white schools can be held to higher standards than whites during the transitional period.⁵² The conclusion is, therefore, that the differential use of tests as screening devices has, at best, only temporary judicial support, and that their eventual elimination by the courts may force the school boards to adopt some administrative device such as the "track system" as a means of dealing with the problem.

THE REMNANTS OF RESISTANCE: PRIVATE SCHOOLS AND TUITION GRANTS

As efforts to circumvent the *Brown* decision have become increasingly untenable, some southern states have turned to tuition grant laws and private school schemes as a means, in the language of former Virginia governor J. Lindsey Almond, of assuring that no child is forced to attend a desegregated school.⁵³ To accomplish this end, tuition payments have been made available from public funds to support attendance at private schools.

Theoretically, tuition grants were designed to accommodate the irreconcilably segregationist parent. But in order to avoid a possible constitutional chal-

lenge as a scheme to preserve segregation, the various state statutes have been so broadly drawn that virtually any parent, regardless of his attitude toward desegregation, can apply for and receive a grant for private education. The end result has been that a sizable number of citizens whose children were not attending desegregated schools have received grants. Moreover, persons whose children were attending bona fide private schools prior to desegregation also garnered their share of available public funds. And perhaps most ironical of all, some Negroes have even claimed benefits under the statutes. The total annual expenditures for these grants has now become so large in Virginia that some alarm has been expressed lest funds for the support of public schools be diminished.⁵⁴

While the tuition grant program in its present form may be unwise public policy, it does not seem susceptible to legal challenge as long as it is not used as a subterfuge for abandoning public schools altogether. It is when the program gets tied in with schemes to withdraw from the local operation of public schools in favor of a system of ostensibly private schools that questions of a legal nature arise. Therefore, if anything of legal value really remains of the old "massive resistance" program it must be found in the private school plan.

The legality of any private school scheme turns inevitably on the concept of state action because the Fourteenth Amendment does not reach private acts of discrimination *per se*. It only applies wherever a significant measure of state action (control or support) can be discerned. But in recent years the courts have expanded the doctrine to encompass a variety of ostensibly private acts by imbuing them with a public purpose. State action has been found in state judicial enforcement of restrictive covenants,⁵⁵ in primary elections and party conventions conducted by private groups,⁵⁶ and in efforts to lease public recreational facilities to private organizations.⁵⁷ Moreover, in *Marsh v. Alabama* the Supreme Court said that where a privately owned company town performed public functions it was governed by the prohibitions of the Fourteenth Amendment.⁵⁸ If a private school plan is to survive successfully, therefore, it must first be divested of anything which implies a public character.

In this respect, the laws of the southern states seem to be defective on several counts. In the first place, there seems to be a direct tie between the state and the private school teacher through the inclusion of the latter in state retirement systems.⁵⁹ This seems to characterize these individuals as state employees to some degree and tends to undermine the argument in favor of private action. In *Kerr v. Enoch Pratt Library*,⁶⁰ the Court of Appeals found that the inclusion of library employees under the Baltimore City retirement system was one ground for denying the defense claim that as a private institution it was beyond the reach of the Fourteenth Amendment.

The participation of teachers in state retirement systems seems to be enough

to establish a claim of state action. But the acceptance of tuition grants by such schools seems to confirm the fact. While several of the state laws have taken pains to provide that payments are to be made to parents and not to schools, this does not seem to break the link with the state because companion statutes usually make it a misdemeanor to expend an educational grant for anything other than payment to a school.⁶¹ The state action theory also seems implicit in the requirement that the grants be limited to use in nonsectarian schools.⁶² Does this not amount to a contribution to the school? There appears to be some ground for arguing that the grant does not constitute a child-benefit because some children would be discriminated against and denied the benefit. Finally, state action seems to inhere in the frequent stipulation that state boards of education are to "prescribe the minimum academic standards" to be maintained by a school attended by a child receiving an educational grant.⁶³

An attack on the private school plan need not be limited to a narrowly drawn search for state action or public purpose. It can be argued, with some merit, that the intent behind the legislation supporting such schools is unconstitutional. Although it has often been said that courts are not privileged to inquire into the motives of legislatures, the fact is that such inquiries are frequently made. As Murphy puts it: "When the judges disagree with the legislators, the rule is quietly ignored."⁶⁴ Therefore, if courts follow this line of approach it does not seem unlikely that they will find that the abandonment of public education is a step taken to defeat a clear constitutional right. *Cooper v. Aaron* is already authority for the proposition that "state support of segregated schools through any arrangement, management, funds, or property cannot be squared with the Fourteenth Amendment's command that no State shall deny to any person the equal protection of laws."⁶⁵ When a locality substitutes private for public schools, the denial of equal protection is especially accented by the fact that the affected Negro children are denied an educational opportunity which the state freely affords to pupils elsewhere in the state. The principle set down in *James v. Almond* seems to cover the situation adequately. Said the Court:

While the state of Virginia, directly or indirectly, maintains and operates a school system with the use of public funds, or participates by arrangement or otherwise in the management of such a school system, no one public school or grade in Virginia may be closed to avoid the effect of the law of the land... while the state permits other public schools or grades to remain open at the expense of the taxpayers.⁶⁶

To date, Prince Edward County, Virginia is the only southern community to abandon public schools in favor of a private system; and the process of litigation which arose from this condition is moving rapidly to completion as the

TABLE I—Continued on following page
Progress of Desegregation by State and School District

State	School Districts			Enrollment	
	Total	With	Deseg- regated	White	Negro
		Negroes & Whites			
Alabama	114	114	0	527,075 ^b	280,212 ^b
Arkansas	417	228	12	320,204 ^a	108,841 ^a
Delaware	87	87	87	74,417	17,073
Dist. of Columbia	1	1	1	22,141	110,759
Florida	67	67	10	917,557	219,380
Georgia	198	182	1	668,548	327,656
Kentucky	206	167	150	610,000 ^a	48,000 ^a
Louisiana	67	67	1	451,778 ^a	297,427 ^a
Maryland	24	23	23	515,093 ^a	152,667 ^a
Mississippi	150	150	0	297,419 ^b	288,089 ^a
Missouri	1,693	214 ^a	203 ^a	766,800 ^a	85,200 ^a
North Carolina	173	173	16	802,188	339,841
Oklahoma	1,180	240	195	513,064 ^a	41,600 ^a
South Carolina	108	108	0	361,162	250,058
Tennessee	154	143	25	671,348 ^a	161,000 ^a
Texas	1,461	919	174	1,951,613 ^a	310,341 ^a
Virginia	134	132	31	679,230 ^b	221,037 ^b
West Virginia	55	43	43	412,878 ^a	25,250 ^a
Total	6,229	3,058	972	10,562,515	3,279,431

present article is prepared. In a 1961 decision, the district court enjoined the County from issuing tuition grants or permitting tax credits for the support of the local private schools.⁶⁷ During mid-summer, 1962 the same court supplemented this holding with the basic finding that the Prince Edward public schools "may not be closed to avoid the effect of the law of the land as interpreted by the Supreme Court while the Commonwealth of Virginia permits other public schools to remain open at the expense of the taxpayers."⁶⁸ Although appeals have thus far delayed the reopening of County schools, the prophecy based on *Cooper v. Aaron* and *James v. Almond* seems to have been vindicated.

CONCLUSION

To date, the pace of desegregation has been relatively slow. The statistical presentation in Table I reveals that of the 3,058 southern school districts having both Negroes and whites at the end of 1962, only 972 contain schools attended by both races. Moreover, of the 1,068,678 Negro students residing in

TABLE I—Continued

State	Enrollment			
	In Desegregated Districts		Negroes in Schools With Whites	
	White	Negro	Number	Percentage*
Alabama	0	0	0	—
Arkansas	58,993	13,801	250	.230
Delaware	61,045	11,684	9,460	55.4
Dist. of Columbia	22,141	110,759	87,749	79.2
Florida	531,946 ^a	99,292 ^a	1,168	.532
Georgia	58,629 ^a	51,991 ^a	44	.013
Kentucky	460,000 ^a	34,000 ^a	22,765 ^b	52.9
Louisiana	39,352	59,428	107	.036
Maryland	510,219	152,667	62,121	40.7
Mississippi	0	0	0	—
Missouri	NNA	75,000 ^a	35,000 ^a	41.1
North Carolina	165,621	78,305	901	.265
Oklahoma	301,430 ^a	34,493 ^a	10,555 ^b	25.4
South Carolina	0	0	0	—
Tennessee	289,096 ^a	96,095 ^a	1,817	1.13
Texas	1,100,000 ^a	125,000 ^a	6,700 ^a	2.16
Virginia	100,913	100,913	1,230	.556
West Virginia	25,250	25,250	15,500 ^a	61.4
Total	4,366,579 ^a	1,068,678	255,367	7.8

* Estimated

^a 1961-62

^b 1960-61

^a Missouri not included as numbers not available (NNA)

^a Proportion of Negroes in schools with whites to total Negro enrollment

desegregated school districts, only 7.8 per cent actually attend mixed schools. Outside the Border states, no southern state has as much as 3 per cent of its total Negro school population attending desegregated schools.⁶⁹

The snail-like progression which these statistics suggest is due, in part, to the magnitude of the legal issues just discussed and, in part, to the desire of the lower federal courts to exercise their authority cautiously. Faced with the vociferous protest of the resisting states, the courts have been willing to accept placement laws and permissive transfer rules to blunt the more aggressive thrust of Negro social action. But at the same time, they have rejected the evasive schemes of the southern legislatures and carved a legal path through which desegregation can proceed, albeit slowly.

The major question for the future will be primarily one of timing. Recent

direct action movements among Negroes suggest an impatience with what is considered the undue circumspection of the federal judiciary. It may well be that, as the courts continue to exercise their great equity powers in the school cases, they will need to strike a new balance between the respective parties based on a new assessment of both the expanding area of acceptance of desegregation among whites, and the growing impatience of Negro litigants. The capacity of the law to stimulate social change, while not unlimited, is nevertheless substantial. The task of the courts will be in some measure to chart the direction and determine the rapidity with which this change takes place.

NOTES

1. See Oliver W. Holmes, Jr., *The Common Law* (Boston: Little Brown, 1891); Roscoe Pound, *An Introduction to the Philosophy of Law* (New Haven: Yale University Press, 1922); *Law and Morals* (2nd ed.; London: Oxford University Press, 1926); *Spirit of the Common Law* (Boston, Marshall Jones Co., 1921); Benjamin Cardozo, *The Nature of the Judicial Process* (New Haven: Yale University Press, 1921).
2. C. Herman Pritchett, *The Roosevelt Court: A Study in Judicial Politics and Values* (New York: Macmillan, 1948), and *Civil Liberties and the Vinson Court* (Chicago: University of Chicago Press, 1954).
3. Glendon A. Schubert, "Game Theory and Judicial Behavior" in Murphy, Walter F. and Pritchett, C. Herman (ed.), *Courts, Judges, and Politics* (New York: Random House, 1961), pp. 535-539.
4. John R. Schmidhauser, *The Supreme Court: Its Politics, Personalities, and Procedures* (New York: Holt, Rinehart, and Winston, 1960).
5. Harold D. Lasswell, *Who Gets What, When, How* (New York: Meridian Books Inc., 1958).
6. *Brown v. Board of Education of Topeka*, 347 U. S. 483 (1954); 349 U. S. 294 (1955).
7. The doctrine, first enunciated in *Plessy v. Ferguson*, 163 U. S. 537 (1896), sanctioned the maintenance of racially differentiated transportation facilities. Subsequently, it was applied in a variety of other substantive fields. For the impact of the decision upon education, see *Cummings v. Richmond County Board of Education*, 175 U. S. 528 (1899); *Berea College v. Kentucky*, 211 U. S. 45 (1908); *Gong Lum v. Rice*, 275 U. S. 78 (1927).
8. See *Missouri ex rel. Gaines v. Canada*, 305 U. S. 337 (1938); *Sipuel v. Board of Regents of the University of Oklahoma*, 332 U. S. 631 (1938); *Sweatt v. Painter*; 339 U. S. 629 (1950).
9. For instance see Janet Reif, *Crisis in Norfolk* (Richmond: Virginia Council on Human Relations, 1960). The legal relevance of such expectations hinges largely on the distinction which courts make between "avoidance" and "delay." While "evasion" is clearly illegal, legislative attempts to "avoid" the consequences of desegregation are not. Consequently, a certain legal plausibility for the "massive resistance" program derives from this distinction. Albert P. Blaustein and Clar-

ence Clyde Ferguson, Jr., *Desegregation and the Law* (New Brunswick: Rutgers University Press, 1957), pp. 240-241.

10. Omitted from this analysis are several purely jurisdictional questions. This seems justified partly because their technical legal nature transcends the intended scope of the article, and more importantly, because such contentions have been rather perfunctorily dismissed by the district courts. See *Corbin v. School Board of Pulaski County*, 177 F. 2d 924 (1949); and *School Board of Charlottesville v. Allen*, 2 Race Relations Law Reporter 59 (1957) which reject the Eleventh Amendment as a bar to desegregation suits. Consult *School Board of Newport News, Virginia v. Atkins*, 246 F. 2d 325 (1957) repudiating the applicability of the doctrine of equitable abstention. But note the exception presented by *Allen v. School Board of Prince Edward County*, 6 Race Relations Law Reporter 749 (1961). Also examine *Beckett v. School Board of Norfolk, Virginia* 148 F. Supp. 430 (1957) and *Kelley v. Board of Education of Nashville*, 159 F. Supp. 272 (1958) denying the admissibility of the "exhaustion" doctrine as a deterrent to federal court jurisdiction.
11. The Supreme Court ruled that the lower tribunals "may consider problems related to administration, arising from the physical condition of the school plant, the school transportation system, personnel, revision of school districts and attendance areas into compact units to achieve a system of determining admission to the public schools on a nonracial basis, and the revision of local laws and regulations which may be necessary in solving the foregoing problems." *Brown, op. cit.* (1955).
12. *Kovacs v. Cooper*, 336 U. S. 77, 83 (1949).
13. 245 U. S. 60 (1917). See also *Harmon v. Tyler*, 273 U. S. 668 (1927); *Richmond v. Deans*, 281 U. S. 704 (1930); *Shelley v. Kraemer*, 334 U. S. 1 (1948).
14. *Orleans Parish School Board v. Bush*, 242 F. 2d 156, 163 (1957).
15. 1 Race Relations Law Reporter 655 (1956).
16. *Cooper v. Aaron*, 358 U. S. 1 (1958).
17. 170 F. Supp. 331 (1959).
18. 170 F. Supp. 342 (1959).
19. Moreover, "the inevitability of violence" theory does not appear to have much factual basis. Tentative sociological findings seem to suggest that propensities for unlawfulness bear an inverse relationship to improvements in social class and occupational status. See Melvin M. Tumin *Desegregation: Resistance and Readiness* (Princeton: Princeton University Press, 1958). Earlier psychological studies reveal that a distinction can be made between approval of desegregation and acceptance of it. Consequently, verbal attitudes reflecting race prejudice are not necessarily translated into overt behavior of a violent nature. Consult Kitner, Ralph, et al., "Verbal Attitudes and Overt Behavior Involving Race Prejudice," *Journal of Abnormal Psychology*, 47, 649-652 (Winter, 1952) and William Lapier, Attitudes v. Action, *Social Forces*, 13, 230-237 (Summer, 1934). Data from available polls give added credence to this contention. A 1956 survey by the National Opinion Research Center demonstrated that in those areas of the Border South where desegregation had already occurred without violence, more than two-thirds of the white population continued to believe that Negroes should attend separate schools. These and similar findings are reported in Don Shoemaker, *With All Deliberate Speed* (New York: Harper and Brothers, 1957), p. 75.

20. See *Beckett, op. cit.*
21. 144 F. Supp. 239 (1956).
22. *Beckett v. School Board of Norfolk*, 2 Race Relations Law Reporter 337 (1957).
23. 162 F. Supp. 372 (1958); 358 U. S. 101 (1958).
24. *Cooper v. Aaron*, 358 U. S. 1 (1958).
25. *Kelley v. Board of Education of Nashville*, 270 F. 2d 209 (1959).
26. *Goss v. Board of Education of Knoxville*, 186 F. Supp. 559 (1960); *Mapp v. Board of Education of Chattanooga*, 5 Race Relations Law Reporter 1035 (1960).
27. *Calhoun v. Latimer*, 5 Race Relations Law Reporter 650 (1960).
28. *Borders v. Rippy* 184 F. Supp. 402 (1960); *Ross v. Peterson*, 5 Race Relations Law Reporter 709 (1960).
29. *Evans v. Buchanan*, 281 F. 2d 385 (1960). See *Southern School News*, August, 1960, p. 2.
30. *Ibid.*
31. *Ibid.*
32. In this connection see also *Blackwell v. Fairfax County School Board*, 5 Race Relations Law Reporter 1056 (1960). In *Watson v. Memphis*, 373 U.S. 526 (1963) the Supreme Court expressed concern over the slow pace with which public recreation facilities had been desegregated in Memphis, Tennessee. In a very pointed dicta, the Court also voiced impatience with the slow progress of school integration. This decision suggests a pending judicial assault on what has been widely described as "tokenism."
33. See "1956 Extra Sessions Laws of the Virginia Legislature," Race Relations Law Reporter, I (December, 1956), 1107-1109. *Miss. Code ANN.*, 6334-01 to 08 (Supp. 1958). *Alabama Code*, tit. 52, par. 61 (1)-(12) (Supp. 1957); *North Carolina Public Laws 1955*, Chapter 366 and *North Carolina General Statutes*, par. 115-176 to 179 (Supp. 1957).
34. See "Statement of Judge Walter E. Hoffman to the Norfolk School Board, August 25, 1958," in *Race Relations Law Reporter*, III (October, 1958).
35. See *Allen v. School Board of Charlottesville*, *Southern School News*, January, 1962.
36. *Kelley v. Board of Education of Nashville*, 270 F. 2d 209 (1959). It should be noted that while the Supreme Court denied certiorari, three justices felt that review should be granted because of the doubtful constitutionality of the transfer provision. See *Kelley v. Board of Education of Nashville*, 361 U. S. 924 (1960).
37. *Goss v. The Board of Education of Knoxville*, 186 F. Supp. 559 (1960).
38. *Maxwell v. Board of Education of Davidson County*, 5 Race Relations Law Reporter 1040 (1960); *Mapp v. Board of Education of Chattanooga*, 5 Race Relations Law Reporter 1035 (1960).
39. See Report of the U. S. Civil Rights Commission, *Education* (Washington, D. C.: Government Printing Office, 1961), p. 21.
40. *Boson v. Rippy*, 85 F. 2d 43 (1960).
41. See *Goss v. The Board of Education of Knoxville* and *Maxwell v. The Board of Education of Davidson County*, 373 U.S. 683 (1963).
42. See *Southern School News*, January, 1962, p. 1. See also in this regard *Clemmons v. Board of Education of Hillsboro, Ohio*, 228 F. 2d 853 (1956), and 2 Race Relations Law Reporter 518 (April, 1956).
43. It should be noted that the decision was subsequently upheld by the Court of

- Appeals. See *Southern School News*, January, 1962, p. 1, 6. The Supreme Court denied certiorari, *Ibid.*
44. For a convenient summary of these findings, see Hebert Wey and John Corey, *Action Patterns in School Desegregation* (Bloomington: Phi Delta Kappa, Inc., 1959), Chapter XIII, pp. 212-215.
45. See *Ibid.*, pp. 218-228. See also *Report of U. S. Commission on Civil Rights* (Washington: U. S. Government Printing Office, 1959) pp. 276-277. See also Frank Stallings, *Racial Difference in Academic Achievement* (Atlanta: Southern Regional Council, 1960), Report No. L-16 and *Desegregation and Academic Achievement* (Atlanta: Southern Regional Council, 1960), Report No. L-17. Both Reports conclude that where the "track system" is employed as an educational device in the desegregation process, academic standards are actually raised because Negro and white students alike tend to improve their performance.
46. *Ibid.*, p. 213.
47. See Carl F. Hansen, *Miracle of Social Adjustment: Desegregation in the Washington, D. C. Public Schools* (New York: Anti-defamation League of B'nai Brith, 1957).
48. Omer Carmichael and Weldon James, *The Louisville Story* (New York: Simon and Schuster, 1957).
49. 4 Race Relations Law Reporter, 609 (1959).
50. See *Hamm v. County School Board of Arlington*, 263 F. 2d 686 (1959).
51. *Allen v. School Board of Charlottesville*, *Southern School News*, January, 1962, p. 8. Also note *Green v. Roanoke School Board*, *Ibid.*, June, 1962, p. 10.
52. *Beckett, op. cit.*
53. *Southern School News*, March, 1959, p. 14.
54. See *Virginian-Pilot*, June 14, 1960, p. 17.
55. *Shelley v. Kraemer*, *op. cit.*
56. *Nixon v. Condon*, 286 U. S. 73 (1932); *Smith v. Allwright*, 321 U. S. 649 (1944).
57. *Greensboro v. Simpkins*, 246 F. 2d 425 (1957); *Muir v. Louisville Park Theatrical Association*, 347 U. S. 971 (1954).
58. 326 U. S. 501 (1946).
59. For instance see Chapter 64, 1956 Extra Session Laws of the Virginia General Assembly, reprinted in 1 Race Relations Law Reporter 1098-1100 (December, 1956).
60. 149 F. 2d 212 (1945); 326 U. S. 721 (1945).
61. For instance see *Code of Virginia*, Section 22-115. 12.
62. See *Ibid.*, Section 22-115. Also Alabama State Legislature, *Act No. 652*, Regular Session, 1956; Arkansas State Legislature, *Act No. 236*, Regular Session, 1959; Florida State Legislature, *Senate Bill No. 382*, Regular Session, 1959.
63. See Chapter 53, 1959 Extra Session Laws of Virginia, Reprinted in 4 Race Relations Law Reporter 415 (Summer, 1959).
64. Walter Murphy, "A Generation of Litigation" (unpublished Ph. D. dissertation, Department of Political Science, University of Chicago, 1957), p. 239.
65. 358 U. S. 1, 19 (1958).
66. 170 F. Supp. 331, 332 (1959).
67. *Allen v. School Board of Prince Edward County*, *op. cit.* The court held that the support of private schools in this manner was part of an evasive scheme to avoid desegregation.

68. Quoted in *Atlanta Constitution*, July 27, 1962, p. 14. Decision on this point had been delayed pending the outcome of state court litigation dealing with the validity of the relevant legislation under Section 129 of the Virginia Constitution which seemed to require the operation of a system of "free public schools" throughout the state. But the Virginia State Supreme Court ruled that the stipulation was permissive. *Griffin v. Prince Edward Board of Supervisors*. See *Southern School News*, March, 1962, p. 1.
69. *Statistical Summary* (Nashville: Southern Education Reporting Service, 1962), p. 3.

Two of the most active areas of contemporary investigation of learning are operant conditioning theory and cognitive psychology. Often considered independently, these two streams of theoretical development are joined in this article, an effort of significance for educational research and practice.

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Programmed Instruction and the Teaching of Complex Intellectual Skills: Problems and Prospects

It has become commonplace, in discussions of the role of automated instruction in the educational process, to assign to programmed texts and teaching machines the task of teaching routine "rote" or "drill" subjects, while the teacher is freed to handle the truly creative teaching, where "thinking," "understanding," and "problem solving" are involved. To many teachers and educators this is a very attractive idea. On the one hand, programmed instruction offers a means of coping with the universally acknowledged teacher overload. On the other hand, its relegation to matters of drill and routine minimizes the threat that automated instruction will eventually replace the teacher. Not only is the teacher viewed as irreplaceable; he is clearly given the most interesting and important tasks. Attractive as it appears, however, this view is based on an essentially narrow understanding of programmed instruction, one that concentrates on its more obvious technical characteristics and does not probe very deeply into the principles of learning underlying it, or into the more subtle techniques used in implementing these principles.

The reasons for such a misunderstanding of the nature of programmed instruction are not far to seek. Popular introductions to the field usually provide only the most surface discussions of the psychological principles on which programmed instruction is based; and more sophisticated works are usually couched in language far too technical for the psychological layman. Secondly,

almost all of the programs available today—the programs on which teachers are basing their judgments of the field—are concerned with teaching verbal, factual material and not broader concepts or skills. What is more, many of these programs are based on inadequate analysis of subject matter and employ generally unsophisticated techniques of presenting the material and gathering responses. These are, in fact, little more than the glorified workbooks that many teachers take them for. Finally, and perhaps most important, no casual scanning of even a well-constructed program will reveal those subtle qualities of sequencing and prompting that make it a self-sufficient instructional unit, and not simply a series of more or less random exercises. For such an appreciation, a relatively sophisticated understanding of what goes into the construction of a program and of the principles underlying it is necessary.

I propose to examine in this essay the critical theoretical bases of programmed instruction, and to explore their relevance to the problems of teaching complex concepts and problem-solving skills. In so doing, I will seek to define programmed instruction in such a way as to make its theoretical contributions and requirements particularly evident. This will mean minimizing its self-instructional aspects and emphasizing principles of instruction that may have application in a variety of educational contexts. And it will mean, further, treating programmed instruction as a means of experimenting with the educational process, as well as of meeting immediate educational demands.

We can begin with a characterization of programmed instruction as an attempt to approximate, in a non-tutorial setting, certain critical features of fine tutorial instruction. To this extent, there is agreement among virtually all "schools" of programmed instruction, Crowderian and Skinnerian included. The differences among schools of programmed instruction lie largely in the aspects of tutorial instruction they choose to imitate, and the reasons they give for their choices. Crowder, at least as far as one can determine from his published articles on the subject (e.g. 1960, 1962), is concerned largely with the variable progress toward a goal that marks the tutorial process. The tutor, while retaining the right to define the ultimate learning outcome, must adjust his teaching sequence and procedure to the individual student. Thus, Crowder's approach is based on a psychology of individual differences, and is relatively little concerned with the nature of the learning process itself.

Crowder's "intrinsic programs" reflect this priority of concerns. Branching provides for some degree of adaptation to individual differences; but long texts followed by multiple-choice questions—originally introduced to meet the technological demands of branching within a self-instructional system—are used exclusively, regardless of the nature of the subject matter, and without reference to a theory of how learning actually comes about. This is pos-

sible within the framework of Crowder's theory because the actual learning process is relegated to the period during which the student reads the text. The overt response is not considered central to learning, but merely a means of monitoring progress through the variable instructional sequence.

For Skinner, the priorities are reversed, and a fairly ambitious theory about the nature of the learning process assumes first place in determining the form that programmed instruction will take. This is "operant conditioning theory," which places primary emphasis on the overt, observable response of the learner and on the external "reinforcements" contingent upon his response. While individual differences among learners are not denied, they are largely ignored, and attention is focused on learning and teaching mechanisms assumed to be more or less universal. Thus, Skinnerian programmers tend to place more emphasis on defining responses and on techniques for eliciting desirable responses, and less on adjustment to individual differences. There is no theoretical objection to branching, but explorations of its effects seem less interesting within this theoretical framework than exploration of sequencing and prompting techniques and of variations in the kinds of responses required.

For practical instructional purposes, each of these schools has something to offer. Certainly the Crowderian emphasis on adaptation to individual differences meets an important educational need—one that, whatever theory may say about the sources of such differences, will always be present in an institutional educational setting. Yet it seems to me that for the development of a general theory of instruction, it is the Skinnerian approach to programmed instruction that offers more. Crowder asks simply *whether* learning has taken place—an important question from a practical point of view; but Skinner raises the psychologically more fundamental question of *how* learning takes place.

With this question as a starting point, it is possible to treat programmed instruction as primarily an attempt to use psychological theory and method in the development of a systematic theory of instruction. Teaching programs may serve not only as practical instruments of instruction, but also as research tools in the study of fundamental processes of learning and teaching. The aim of such research should be to go beyond the intuitively good teacher to a set of systematically defined principles of instruction, principles that will be widely applicable and that can be communicated to those not blessed with the intuition of the "born teacher."

As a starting point for a theory of instruction, operant conditioning seems particularly appropriate; for, more than most psychological theories of learning, it is concerned with deliberately changing behavior—that is, with instruction. In operant conditioning studies the experimenter attempts to gain

as complete control as possible over his subjects' behavior, regulating the stimuli to which they respond, the rate of response, and the nature of the response itself. Yet operant-conditioning theory is essentially "contentless." It is not specific as to the kind of behaviors to which it can be applied, and thus cannot in itself prescribe a teaching procedure or sequence for any given subject-matter or skill. It offers merely a general instructional theory, together with a method of behavioral analysis. The instructional theory is applicable only after the behavioral analysis has presented the task in appropriate terms. The situation is somewhat analogous to the use of a computer: it can, at least potentially, solve complex and difficult problems, but only if the data is presented in a certain "language," often different from the language used to describe the same problem in other settings.

That operant analysis and the instructional techniques associated with it work in the laboratory setting can hardly be disputed. By carefully defining the desired responses and relevant stimuli, by controlling the prior history of the organism, often from birth, and by eliminating competing stimulation to a very great extent, psychologists using operant conditioning techniques have succeeded in establishing and maintaining at will some very complex behavioral repertoires in their animal subjects. Our concern here, however, is whether these analytic procedures and techniques of control are appropriate for human instruction, particularly in the conceptual and problem-solving domains. Can the analytic language be applied to intellectual skills; and, if so, is it worth the effort? Are the techniques of instruction applicable outside the rigorously controlled laboratory situation? How does work within the operant conditioning framework tend to limit the kinds of questions asked, and the nature of the instructional procedures tried? Finally, just how well worked out and definitive is the theory, when we seek application to educational problems?

Three operations are central to the process of operant conditioning as practiced in the laboratory. These are 1) reinforcement, as a means of controlling the strength of a response; 2) stimulus discrimination training as a means of establishing environmental control over behavior; and 3) the "shaping up" of new behaviors by subtle manipulation of both stimuli and reinforcements. In the following sections of this paper I shall discuss each of these operations in some detail, considering not only their current status in laboratory experiments but also their present and possible relevance in the application of laboratory learning theory to education. Except in the section on reinforcement, which will be treated relatively briefly, particular attention will be devoted to the application of operant conditioning concepts and procedures to the teaching of complex intellectual skills.

REINFORCEMENT

Reinforcement is the central operation in operant conditioning, which is sometimes, in fact, referred to as "reinforcement theory." In the animal laboratory, the definition and function of reinforcement are relatively clear. To reinforce a response means to strengthen it—that is, to increase its rate, its intensity, its likelihood of occurrence, and so forth. Any response occurring just before a reinforcer is presented will be strengthened in this way. Reinforcement is, therefore, made contingent upon the subject's behavior. It is given after a desired response, withheld after all other responses. Generally, food or water, administered in small doses, serve as reinforcers. The effectiveness of these reinforcers in controlling behavior stands in some fairly regular and predictable relationship to the subject's prior deprivation and to his progress toward satiation as training progresses.

However, the exact effect of reinforcement depends also upon the "schedule" according to which it is administered (cf. Ferster and Skinner, 1957). Is it given after each "correct" response or only after a number of such responses (i.e., on "ratio" schedules)? Or is it given after the passage of a certain fixed or varying amount of time has passed, regardless of what the subject is doing (i.e., on "interval" schedules)? Much of the recent work in operant conditioning has been concerned with the effects of different reinforcement schedules—singly and in combination—on behavior. The effects have been shown to be impressively lawful and regular.

Most of the work on schedules of reinforcement has been concerned less with establishment than with maintenance of behaviors. It is generally thought that reinforcement of each correct response is the most efficient means of actually establishing a new response; but intermittent schedules of various kinds are effective in controlling rate and intensity of a response already learned, and in making it resistant to extinction (i.e., the withdrawal of all reinforcers). Presumably, then, reinforcement schedules should be applicable in education as a means of assuring that what is learned in school will be retained afterwards. In fact, however, there are probably only a limited number of traditional educational problems in which reinforcement schedules, strictly understood, are likely to be of importance. This claim is based upon a consideration of the various possible causes for apparent "forgetting"—i.e., non-maintenance—of learned behaviors and of the relevance of each of these possible causes to school learning.

Operant theorists make a sharp distinction between "extinction" and "forgetting." If a response is repeatedly *made but not reinforced*, the response eventually drops out and is said to be *extinguished*. If, on the other hand, a period of time elapses during which the response is *not made at all*, its subse-

quent weakening or complete disappearance is attributed to *forgetting*. Operant theory has been greatly concerned with extinction, but very little with strict forgetting in the sense of simple disuse. In fact, operant psychologists have claimed that mere disuse of a conditioned response actually yields very little weakening (e.g., Keller and Schoenfeld, 1950, p. 79), and have proposed, instead, that much apparent "forgetting" actually results either from subsequent learning of competing and incompatible responses or from the student's not having initially learned the entire range of occasions on which a given behavior will later be appropriate. In the former case, several arithmetic procedures, for example, may be confused and jumbled, so that no one of them is adequately "remembered." In the latter, the student may be in full command of a particular procedure, but be quite unaware that the problem he has just encountered is one to which the procedure is applicable.

Reinforcement schedules are effective as a means of maintaining behavior only when the cause of loss or weakening is extinction—i.e., complete withdrawal of reinforcement while the response continues to be made. There are certain important instances where true extinction is likely to interfere with school learning. The act of arguing against a consensus, for example, or of using "good" English in a society used to slang or dialect, may not only go unreinforced but actually be punished outside of school. For behaviors of this kind, the systematic application of appropriate reinforcement schedules in school may indeed prove effective.¹

For the most part, however, the behaviors we want to teach are ones that, even after school days are over, will be reinforced on appropriate occasions. This reinforcement may come from the community, from economic advantage, or it may be purely "intrinsic"—the pleasure of solving a problem, for example. Thus extinction, strictly speaking, is probably not often the reason that school learning is unavailable or apparently "forgotten" on later occasions. The learning of incompatible responses or inadequate learning of the occasions appropriate to a given behavior are probably much more frequent causes. Operant theory has a good deal to say about how difficulties of this kind might be avoided. But the solutions offered are concerned, technically speaking, with the establishment of effective and appropriate "stimulus control," as will be discussed in the next section, and not at all with the application of reinforcement schedules.

Still another consideration limits the relevance of reinforcement schedules to educational problems. This is the fact that most of the work on schedules has been concerned with maintaining a single response or a small chain of responses. "Maintenance" means repetition of this response or chain *ad infinitum*.

¹ In addition, reinforcement schedules may have a general area of applicability in dealing with problems of "motivation" for schoolwork.

tum, under appropriate stimulus conditions. The very notion of a schedule, in fact, applies only when the same response is repeated several times, in the presence of the same stimulus. Only at a very gross level of analysis is such repetition of concern in education. The gross behavior of "studying" or "paying attention" may require keeping at the same task; but learning the actual subject or skill usually means learning many different, though related, responses. Even where the same response is frequently made, it is generally made with reference to different stimuli and so does not qualify as repetition in the sense required for application of a reinforcement schedule. On a teaching machine, for example, only the general behavior of going through frame after frame can be maintained by an appropriate reinforcement schedule. The specific responses made to the material in the frames must each be reinforced in some way, for each is different from the last.

If reinforcement *schedules* as a means of maintaining behavior have only a limited sphere of relevance in education, the basic concept of reinforcement as a means of gaining control over behavior is nevertheless a powerful one. Together with the theory of shaping, to be discussed in a later section, reinforcement provides the means of initially establishing and refining students' behavior. There is, therefore, room for a great deal of investigation and explicit experimentation with reinforcement in education. Such research, however, must from the outset take cognizance of two important conditions. First, the educator can never, in practice, duplicate the controlled conditions of the laboratory. Second, he does not have at his disposal the same kinds of reinforcers that the laboratory scientist has.

In a classroom, the previous experience of students cannot be controlled at will, nor can competing stimulation be so neatly eliminated as in the laboratory. Truly immediate reinforcement is often impossible. What is more, the teacher does not automatically control all reinforcers. Children can provide one another with powerful social reinforcements whose effects may conflict with those of the reinforcements provided by the teacher. Self-instruction represents, in part, an attempt to gain a greater degree of control over behavior. Competing sources of stimulation and reinforcement are to some extent eliminated. In truly automated systems, furthermore, precision of timing may be achieved and immediate reinforcement for appropriate responses provided. It is largely because of the extra measure of control offered that Skinner and certain others have argued in favor of teaching *machines* and against the widespread substitution of programmed texts.

Automation, then, is one approach to the problem of control; but there are some other avenues of investigation that may be equally promising. We actually know very little, for example, about how reinforcement works in group situations. Can verbal behavior in the classroom be controlled by reinforce-

ment as we know it can in individual experimental or therapy sessions (cf. Krasner, 1958)? Does reinforcement of one student's response have any effect on the behavior of other students? How can the teacher utilize the reinforcements of classmates to support rather than hinder his efforts?² Answers to questions such as these should prove fruitful for educational practice.

In addition, since we cannot use the primary reinforcers and the deprivation procedures of the laboratory, it is important that the properties of other reinforcers be explored if reinforcement theory is to be systematically applied in education. For example, it is generally assumed that in a teaching machine program, confirmation of the correct answer—success, that is—serves as a reinforcer. If this is so, do many reinforcements with success lead to "satiation" and hence to reduced effectiveness of the reinforcer? Conversely, does prior failure (i.e., deprivation of success) lead to greater effectiveness?

More generally, we need to investigate the question, "*What* reinforcers work, and for *whom*?" This question is hardly a new one for psychology, although it is somewhat foreign to the operant conditioning framework. Most of the work in motivation, while the term "reinforcement" may never be used, is concerned with the *what* part of the question; and when individual differences in motives are studied, the *whom* part of the question is attacked as well. If the findings of investigations along these lines can be integrated into the operant framework, "reinforcement" may become a truly practical concept in many educational settings.

STIMULUS DISCRIMINATION AND CONTROL

Stimulus discrimination and stimulus control are the operations whereby the subject's behavior is brought under environmental "control"—that is, the organism learns when it is appropriate to make certain responses in his repertoire. The laboratory paradigm for stimulus control is simple: reinforce a response when it is made in the presence of one stimulus; extinguish it (provide no reinforcement) in the presence of all others. The subject will quickly come to make the response only to the stimulus that has been the occasion for reinforcement. The response is then said to be under "control" of that stimulus. When the relevant stimuli are complex or unfamiliar, a period of training in which the organism simply learns to distinguish among them is often required. This is called discrimination training. Through such training the organism learns to distinguish red from green, loud from soft, mirror-image from direct image, noun from verb—and so forth. The list of attributes according to which discriminations can be made is virtually endless. Even animals can be taught astonishingly fine and complex discriminations.³ Stimulus discrimina-

² In this matter, some of the work in group dynamics may provide at least tentative answers.

³ Skinner (1960), for example, has trained pigeons to guide missiles, a task that required their making fine discriminations among target points.

tion and stimulus control are intimately bound up with one another; for control without discrimination is impossible, and the only observable evidence of discrimination is that stimuli control different responses.

The concept of "control" does not imply a physically causal relationship: a stimulus comes to control a response only as a result of reinforcement. Nor does "control" necessarily imply a one-to-one stimulus-response relationship or an automatic connection. The same stimulus may control different responses; and several stimuli may control the same response. In the former case, the patterning of stimuli and the surrounding stimulus context determine which response is appropriate. As a very simple example of the role of context in controlling a response, a pigeon with previous conditioning experience can be observed to peck rapidly at a lighted key when the overhead "house lights" are on, but to remain quiescent in the presence of the same lighted key when the house lights go off. This is because in the past he has been reinforced for pecking only when the house lights were on. In the latter case, where different stimuli control the same response, we have a case of concept formation or "abstraction." Here the response is actually under control of only a single attribute of an object, so that, for example, books, glasses, paints, wines and dresses may all be called "red."⁴

It has been pointed out (Chomsky, 1959, p. 30) that there exists some ambiguity within operant theory as to whether the actual stimulus for a response is anything in the environment at a given moment to which the organism is capable of reacting, or only that event to which it in fact *does* react. I think that to be consistent, it is necessary to choose the latter alternative; thus, in effect, admitting that it is possible to identify the effective stimulus in a situation only after the response has been identified. This, in turn, means that it will be impossible to predict behavior under given environmental conditions without also knowing something about the individual organism's past history—that is, how it has reacted on previous occasions to similar events. Operant theory cannot, then, predict behavior in general, but only behavior in a given situation for an individual some of whose history is known.

In educational settings, of course, we rarely have complete knowledge of a student's past experience relevant to a given subject-matter or skill. The lack of such knowledge represents one of the greatest stumbling blocks in the development of teaching programs; for without it, we cannot predict how a student will initially react to certain situations and thus often do not know exactly where and how instruction should begin. Because it provides a detailed

⁴ Abstraction and control by contextual stimuli can occur simultaneously, as when the question "What color are they?" sets the occasion on which "red" will be reinforced, and "What shape are they?" sets the occasion on which "round" will be reinforced; but the array of objects remains the same.

record of a student's responses, correct and incorrect, under specifiable conditions, programmed instruction itself, based on careful behavioral analysis, can serve as a very powerful tool in identifying strengths and weaknesses of earlier learning. This kind of diagnosis is, in fact, one of the major contributions programmed instruction can make to education, even where it is not to be used as a major mode of instruction (see Resnick, 1963b).

Behavioral analysis

"Behavioral analysis" within the operant conditioning framework means specification not only of responses, but of the "discriminative," or controlling, stimuli for those responses. For each response, both " S^D 's" (appropriate occasions) and " $S\Delta$'s" (inappropriate occasions) must be named. This is the "language" of analysis for operant theory—the terms into which all problems must be translated before operant conditioning procedures can be systematically applied. Properly understood, this language goes far beyond "automatic" connections. It is a system capable of a great deal of flexibility, and yet it preserves the specificity of stimulus-response analysis. Herein lies its great virtue.

In the context of behavioral analysis, knowledge, skill, and ability can be dealt with only insofar as they can be described in terms of performance. This description is not a matter of listing "correlates" of ability or knowledge, but of deciding what observable behaviors will be accepted as evidence of their existence. The behaviorist simply eschews the question of whether knowledge, for instance, exists apart from these observable behaviors (cf. Scheffler, 1962, pp. 212-213). While, in so doing, he may fail to answer to the philosopher's satisfaction the question, "What is knowledge?", he very effectively provides himself with a set of usable goals for instruction. Skinner has stated the case well:

We can define terms like "information," "knowledge," and "verbal ability" by reference to the behavior from which we infer their presence. *We may then teach the behavior directly.* Instead of "transmitting information to the student" we may simply set up the behavior which is taken as a sign that he possesses information. Instead of teaching a "knowledge of French" we may teach the behavior from which we infer such knowledge. Instead of teaching "an ability to read" we may set up the behavioral repertoire which distinguishes the child who knows how to read from one who does not. (Skinner, 1961, p. 383).

To claim that behavioral definition and analysis of this kind is necessary is not to claim either that the task has already been accomplished or that it will be easy to accomplish. Part of the difficulty lies in finding persons who are at once competent in the subject-matter under consideration and conversant

with the requirements of behavioral analysis.⁵ Even for those familiar with the analytic procedure, however, the task remains a complex and demanding one.

Behavioral analysis of any subject or skill involves defining it in terms of responses made to specific discriminative stimuli. Where verbal learning is involved, however, we rarely encounter situations exactly analogous to the simple laboratory paradigm in which a single response is to be made or not, depending upon the presence of a given stimulus. Instead, there is typically an interlocking network of stimuli and responses, in which $S\Delta$'s for one response are SD 's for another, and a given statement can serve as either response or stimulus. Furthermore, for discrimination tasks, the critical features of stimuli may be difficult to identify and describe. Such analyses will, therefore, be difficult to perform; but they will offer much in the way of precision, and they will serve to clarify exactly what must be taught.

Operant analysis of reading

In few areas of instruction is the central importance of stimulus discrimination and control more clear-cut than in reading. In fact, we can define as "reading" any behavior which is made in response to (i.e., "under control of") a printed or written text (cf. Skinner, 1957, p. 65ff.). The range of responses that can be made to a text is very wide. Naming the letters, then saying the words aloud are the earliest. Later a person may follow printed directions, summarize, restate in other words, take issue with, or answer questions about a text, all without reading it aloud. All of these responses and a number of others will be taken as evidence that he has "read" the text. What is common to them all is their dependence upon and reference to a text. In each case the individual discriminates among marks on a page and then responds appropriately to these discriminated stimuli.

Yet to say that for each of the reading skills described above the stimuli are identical and only the responses vary would be a gross over-simplification. It is true that all involve making discriminations among letters; but for each skill certain features of the ways in which these letters are combined also serve as discriminative stimuli. A complete behavioral analysis of any of the various skills called "reading," therefore, would need to specify in detail the attributes of the stimuli that actually control the response. At the simplest level, it would need to identify likely sources of confusion among the stimuli as purely physi-

⁵ Contrary to Scheffler's (1962, p. 213) implication in his comment on Skinner's article, psychologists who have worked with teachers and professors at the task of analysis have found that even the most highly competent of content specialists usually has difficulty, at least initially, in applying the concepts of behavioral analysis to his subject.

cal entities. Letters that look alike (*b* and *d* for example) or words only slightly different in spelling (e.g. *rouge* and *rogue*, or *through* and *thorough*) will need special attention in the course of instruction. For "phonics" reading, moreover, the phonetic units must be specified, along with the responses they control. A complete analysis would seek regularity beyond the obvious: *th*, for example, controls different responses in *thank* and *there*. Are there rules governing the contexts in which *th* is voiced or unvoiced? If so, the contexts as well, and not the letter groups alone, are among the S^D 's and $S\Delta$'s to be specified in analysis.

In the case of behaviors beyond mere "reading aloud," characteristics of language and logical organization, as well as physical marks on a page, serve as controlling stimuli. The relevant dimensions of linguistic and logical variation would need to be identified and their relation to responses of various kinds specified. In all of this, it should be noted, operant theory provides only the analytic framework. Much of the analysis itself falls outside the usual province of the psychologist. Although analogous to the red and green lights of the simple laboratory discrimination experiment, the discriminative stimuli for reading are far more complex. Their accurate specification calls for the skills of a linguist and perhaps a logician or rhetorician. The analysis, in short, carries us deep into the realm of "subject-matter."

Operant analysis of grammar

One of the most recurrent criticisms of stimulus-response theory in the cognitive realm has been that it could not easily account for the complexities of grammar and the ability of the human to produce grammatical sentences that he has neither spoken nor heard before. Certainly no extensive analysis of grammatical behavior within the operant framework now exists. The most ambitious attempt to account for language in operant terms, Skinner's *Verbal Behavior* (1957), is concerned not so much with the form as with the function of language. The single chapter on grammar is brief and sketchy. The notion of the "autoclitic" (i.e., response to one's own behavior) as a means of accounting for grammar, while essentially promising, is incompletely developed, and the discussion, as a result, often confuses more than it clarifies. Thus, a convincing and usable operant analysis of grammar still remains to be performed.

The initial difficulty for any such analysis is that grammatical behavior is too complex to be explained in terms of simple serial production of individual words. Miller, Galanter and Pribram (1960, ch. 11) have documented quite convincingly the inadequacy of a stimulus-response analysis in which only words already produced and not words *to be* produced serve as stimuli for successive words. Were operant analysis thus limited to simple word chaining, this demonstration would indeed be damaging to any claim that it could account for grammatical behavior. There seems to be no reason, however, why

syntactic patterns or grammatical frames, as well as individual words, cannot be treated as discriminative stimuli controlling responses. Thus, the person who says, "Water boils at 212° F" is responding under control of a syntactic pattern as well as under control of various other verbal and non-verbal stimuli in his environment. Under control of the pattern, words produced at the beginning of a sentence are, in effect, influenced by words later to be produced. It is as if the speaker were responding to his own anticipated behavior.

On the assumption that familiar syntactic patterns do in fact function as discriminative stimuli, I have attempted to teach an aspect of English usage in what I think is a novel way. The problem is to use the homonyms *their*, *they're*, and *there* correctly. The instructional procedure is based on a linguistic analysis which identifies the positions that each of the three words can occupy in simple sentences. Using this analysis, a self instructional program has been constructed which uses only position patterns as prompts—no semantic rules for use of a certain word to express a certain idea are given. A special feature of this program is that, in addition to using syntactic patterns as the sole prompts, it uses a system of successive approximation in presentation of the stimuli. That is, the frames are arranged so that there is a progression from relatively simple and clearly "different" patterns for each of the three words to more complex and more similar patterns. In other words, for each individual frame of the program, the whole series of preceding frames serves as the "prompt." This program has been only partially successful thus far, for a number of reasons which I will not attempt to discuss here. Work on the program is continuing, however, and there are indications that the method—both of using syntactic patterns as prompts and of using the technique of successive approximation—will succeed. Even if we should fail in this double venture, however, it may still prove possible to use syntactic patterns as prompts in a more conventional manner.

Operant theory can, thus, handle the learning and use of grammatical patterns rather easily, once the patterns have been identified and described. It should be noted, however, that there are voices that challenge the adequacy of pattern learning as an explanation of grammatical behavior. The challengers represent only a minority among linguists at the moment, but they are vigorous and growing, and above all cogent in their arguments. Chomsky, spokesman for a new "transformational" grammar has argued that the notion of simple "generalization"—i.e., matching a new stimulus with an old one along some dimension, including syntactic structure—is inadequate and that "we understand a new sentence, in part, because we are somehow capable of determining the *process* by which this sentence is *derived* in the grammar." (Chomsky, 1959, p. 56. Italics mine.)

Operant conditioning theory is able to account for such a "transformational

grammar" only in terms of fairly complex behavioral "chains," in which an individual's own response serves as stimulus for his next response. "Chaining" as used here is not simply the serial production of words. The responses, which in turn serve as stimuli, are not single words which more or less automatically call forth the next word in the series. Instead, we must imagine the individual as beginning with a simple sentence⁶ to which he responds by, for example, inverting subject and verb. The new string of words he has just produced now functions as stimulus for still another response, perhaps inserting the negative "not." Further links in the chain may take him still further from the original sentence pattern. In this way, an entirely new sentence is created—new not only in the specific words that fill each position, but in the sense that a brand new grammatical pattern has been, in effect, constructed for the occasion.

What is troubling to strict behaviorist psychology about this process is that the chain occurs so quickly, in sophisticated speakers of the language, that it is largely covert and thus not observable. In positing extended chains of this kind, therefore, we are, in effect, looking "inside the organism" and attempting to describe, or at least hypothesize, some of its internal processes. Yet chaining is an accepted concept within operant theory, which assumes that many apparently unitary acts begin as chains of separate responses. Similarly, it proposes that covert responses may have begun as overt and observable ones, which, with practice, became speeded up and internalized (See Keller and Schoenfeld, 1950, ch. 7).

The question, then, is not so much whether operant conditioning theory can deal with such covert processes, as whether, in so doing, it offers any true measure of superiority over other descriptions of those processes. Is grammatical behavior, in particular, any better "explained" by using stimulus-response terminology than by stating the actual rules of transformation that an individual applies (cf. Chomsky, 1959)? The answer to this question will depend upon what we mean by "explaining." If we wish simply to describe the content of grammatical transformations, then operant language offers little or no advantage.⁷ If, on the other hand, we are interested in finding out how individuals learn and can be taught to make linguistic transformations, the translation into operant terms is of distinct value. It puts us in contact with a body of systematic knowledge concerning learning processes in general and helps to generate hypotheses concerning the nature of language learning in particular. It suggests, furthermore, the kinds of teaching procedures that are likely to be appropriate, since whatever we know about the teaching of behavioral chains of other kinds can now be applied to the teaching of language.

⁶ I.e., a sentence of an already established pattern—in Chomsky's terms a "kernel string."

⁷ In other subject areas, the precision required for translation into operant language is in itself of major importance. Modern-day linguists, however, have been, if anything, more precise than operant theorists in their descriptive endeavors.

Chomsky has argued that, "It is futile to inquire into the causation of verbal behavior until much more is known about the specific character of this behavior; and there is little point in speculating about the process of acquisition without much better understanding of what is acquired" (1959, p. 55). As a linguist, in other words, he gives the task of describing the content of grammatical transformations priority over that of accounting for the way the process of transformation is learned. One cannot but agree that no account of linguistic behavior will be complete until a comprehensive grammar is available. But this certainly does not mean that it is inappropriate for the psychologist to direct his attention to the problem of how grammar is learned, even as the grammar itself is simultaneously developed by the linguist.

In fact, it should be noted that whatever the value of a process-oriented transformational grammar as a descriptive linguistic system, it is still by no means certain that the psychological process of understanding or producing a sentence involves such transformations. Miller (1962) has presented some interesting experimental evidence that tends to support Chomsky's claim; but these data are few and collected under very limited circumstances. Thus, psychologically speaking, the question of pattern versus transformation learning in grammar remains open.

Possible implications of the two hypotheses for instruction can be illustrated by discussing some procedures I have been exploring for teaching children to use new or infrequent (for them) syntactic constructions in their writing. Under the pattern hypothesis, my procedure has been something like this. The children are presented with a number of sentences of a given syntactic pattern. By various methods (these are actually a major subject of investigation), they are led to induce the underlying pattern. Having done this, they produce new sentences of the same pattern. In other words, the pattern, induced from existing grammatical English sentences, serves as S^D for a new sentence.

Under the transformation hypothesis, it would be necessary to present pairs of sentences in which one can be derived from the other by certain rules of transformation. By whatever methods turned out to be appropriate, children might be led to induce the rules that relate the sentences. They might then produce new sentences of the same type as the models; but in this case a chain, in which rules for getting from one sentence to another played an important part, would need to be taught. Probably, with persistence, we could teach children to produce grammatical sentences of any form we chose by either method —pattern or transformation learning. Presumably, however, that method will be more effective which matches the natural method by which children learn grammar by themselves.

Operant analysis and "understanding"

That a grammatical pattern, or even a transformational rule, can serve as stimulus for a verbal response lends a rather new dimension to classical S-R analysis. It has implications for behavior that are not strictly linguistic; for presumably patterns can in the same way control complex productions of other kinds. For example, the planned "structure" or "organization" of an entire speech or piece of writing can serve as part of the discriminative stimulus for each section as it is produced. Similarly, in scientific hypothesis-testing the individual responses of the skilled investigator are under control of a total "strategy" or pattern for testing. Since both of these are in part temporal patterns, they serve to relate earlier to later behavior.⁸ Other kinds of stimulus configurations (purely perceptual, for example), may lack the temporal dimension, but may nevertheless serve as complex SD's.

By thus treating patterns and configurations as discriminative stimuli, operant analysis is able to account for much of what is meant by the terms "meaningful learning" or learning with "understanding." At its simplest, the notion of patterns as SD's simply explains how—within the S-R framework—the individual can learn relationships among events and objects, how he can grasp "principles" and "structure" (cf. Bruner, 1961). To maintain its precision, operant analysis demands, simply, that the exact nature of the relationships and configurations that serve as SD's be specified. It does not allow imprecise terms such as "whole-perception" and "gestalt" to substitute for detailed analysis and identification of the critical relationships. The whole, in short, is still regarded as no greater than the sum of its parts; but relationships and configurations, along with individual elements, make up the parts to be specified and summed.

A second aspect of "meaningful" or non-rote learning is that the student does not simply learn to make automatic responses to set questions. He is able in some way to "transform" the information given, and, by the same token, can give his answers in several forms. As a result, he is not tied to a particular phraseology of either question or answer. He recognizes, for example, that " $5 + 3 = 8$ " and "five and three make eight" are equivalent statements; or that "water boils at ____° F" and "The boiling point of water is ____° F" call for the same response. How can stimulus-response analysis account for this flexibility without claiming that each such equivalence has been separately and explicitly learned?

⁸ Since these larger structures are not fixed in the way grammatical patterns are, and are often not as well learned, their control over behavior is likely to be weaker. As a result, simple chaining of overt responses, without reference to a general structure, is more likely to occur in such extended productions than in the production of simple sentences. Witness, for example, the behavior of an ill-prepared speaker.

Here a process of substitution in which patterns often play a critical part is the answer. In the case of arithmetic, for example, the student learns that statements of the form " $X + Y = Z$ " and " X and Y make Z " are equivalent. These forms function much as do grammatical patterns; they are abstracted from many statements and, once learned, allow the individual to respond appropriately to (i.e., "comprehend") and formulate statements he has never heard before. What is more, the forms or patterns function as S^D 's for one another. Thus, confronted with the statement " $23 + 72 = ?$," the individual can respond (sometimes covertly, sometimes overtly on paper), " $\begin{array}{r} 23 \\ + 72 \\ \hline \end{array}$." His own response then functions as an S^D for the final response, " 95 ."

Sometimes only part of a statement needs to be transformed; but the process of substitution is similar. For example, "boils at" and "boiling point of" may function as S^D 's for one another. This equivalence need not have been learned directly. It may have been inferred from similar statements, such as "freezes at" and "freezing point," or even more indirectly from a general relationship within English between verb and participial forms. In any case, confronted with an unfamiliar stimulus, "The boiling point of water is ____° F," the individual can make a substitution that transforms it into the familiar "Water boils at ____° F" and thus respond appropriately. By the same token, he can produce a statement of either form.

This process of transforming stimuli and responding to patterns allows operant theory to account for still another evidence of "understanding" in learning—the student's ability to transfer what he has learned, to deal with material that is not exactly like any he has seen before. The traditional S-R account of transfer in terms of "generalization" seems to rely heavily on physical and formal similarity of the stimuli in the learning and transfer problems. For the simplest cases of transfer—where the new problem is of essentially the same form as the old—such an explanation seems to be adequate. But sometimes there is no such simple formal similarity of stimuli, and yet transfer occurs. In these cases, the learner may respond on the basis of similarities in relationships among the stimuli (cf. Anderson, 1962b); or he may transform the given stimuli until they match more closely the ones for which he has learned a response. In fact, many instances of "problem-solving" may be less a matter of finding new solutions than of transforming stimuli until it becomes apparent that a response already in one's repertoire is appropriate.

It should be noted that, as in the case of transformational grammar, each of these attempts to account for understanding has involved the assumption of more or less extended "chains" of behavior in which the individual's own responses serve as stimuli for his next response. For the skilled individual, at any rate, these chains occur very quickly and, in large part, covertly. As a re-

sult, they are difficult to study by the usual observational methods. Nonetheless, Skinner (1957, ch. 19), defining "thinking" in terms of just such chains, has claimed that this covert behavior is not different from any other kind of behavior and can easily be accounted for within the same analytic system. His treatment of thought as a process of self-stimulation is in the tradition of Mead (1934), who defined thought as "conversation with the generalized other," carried on within oneself, but learned initially in interaction with others. As an hypothesis on which to base an instructional procedure, this notion is attractive, for it suggests the possibility of overt practice leading to covert "thought." In other words, the elements of the chain may be taught overtly and slowly, later to be internalized and perhaps speeded up.⁹ This procedure of teaching separately elements that will later be combined into a skilled performance is one application of the principle of shaping, to a discussion of which we now turn.

SHAPING

The process of shaping up new behaviors by reinforcing successively closer approximations to a desired response is perhaps operant conditioning's most unique contribution to learning theory. Using shaping procedures, animals have been taught such complex behaviors as bowling, playing ping pong in modified form, and even guiding missiles. With the notion of shaping, active teaching by the experimenter is substituted for passive observation of the subject's learning. The relevance of such a concept to a theory of instruction is immediately clear. From shaping, which is essentially a process of building new responses on the basis of preceding ones, derives the notion of small steps, which is so central to programmed instructional theory as it now stands. By approximating a desired behavior gradually—that is, in small steps—it is possible to provide reinforcement more frequently. This keeps the learning process more closely under the control of the experimenter and makes it more certain—than under trial and error learning, for instance—that the desired outcome will be achieved.

However, despite its immediately apparent relevance for instruction, the theory of shaping is in certain ways inadequately developed for purposes of cognitive instructional theory. In the first place, the actual steps used in shaping up a new behavior are seldom described in the experimental literature. Probably this lack of descriptive literature is partly due to the fact that shaping is often only a preliminary to experiments on stimulus discrimination or reinforcement schedules. Usually, in any case, the steps to be taken are ill-

⁹ It may be noted, incidentally, that teaching of hypothetically effective chains may be a good means of testing the hypothesis that such chains do occur in thinking. Presumably overt practice would be of little advantage if a similar process did not later occur covertly.

defined at the outset of a conditioning experiment. The experimenter knows the final behavior he wants to establish. Then he simply watches the organism until it makes some small move in the direction of that behavior. That move and successive ones toward the terminal behavior are reinforced. The experimenter, in other words, does not impose any fixed route on his subject.

On the analogy of such laboratory procedures, some writers on programming technique have urged that the programmer "let the student write the program." (e.g. Green, 1962; cf. Gilbert, 1960). In fact however, programmed instruction, or indeed any "planned" form of instruction, cannot afford to proceed in this way. It cannot simply define terminal behaviors—no matter how precisely—and leave the rest to observation and hazard. Instead, we must go into the instructional session with some guess as to what route will best bring our student to the desired goal. Changes may be made, whole approaches rejected, in the process of finding the best possible teaching sequence. The student's responses do tell us how to modify our procedures, but we never, in fact, leave the process entirely up to him.

Identification of component behaviors

In order to derive at least a tentative definition of the steps to be used in shaping, some systematic method of behavioral analysis is necessary. In an earlier paper (Resnick, 1963a), I have discussed a procedure by which "component behaviors" for the terminal behaviors are identified, and a set of "nesting" behavioral specifications derived such that smaller and less complex units of behavior serve as components of the larger ones. Teaching begins with the simpler behaviors, which are gradually combined and modified until they lead to the terminal behaviors. Although its language is somewhat less technical, the process described in that paper is essentially the same as the one discussed by Wells Hively (1962a). Hively also points out that until the route by which a student has come to make a response is specified, it may be unclear exactly what he has learned. Thus, specification of components is sometimes necessary in order to truly define a terminal behavior. Undoubtedly many people working in the field of programmed instruction have been concerned with the development of such analytic procedures, but very little of this concern has, to my knowledge, found its way into the literature on programmed instruction.¹⁰ Specification of terminal behaviors has received considerable attention (e.g., Mager, 1961), but analysis of component behaviors is rarely accorded more than a paragraph in discussions of programming; and it is hardly ever mentioned in the more theoretical operant conditioning literature.

¹⁰ The *Journal of Mathematics*, by way of exception, has published articles and reports of work based on a particular form of operant analysis known as "mathetics."

In any case, in the matter of planning for shaping procedures, operant conditioning theory offers little more than a language of analysis and a trial and error research procedure for discovering which sequences work best. For more substantive aid we need to turn elsewhere. The subject-matter, itself, of course, is a major source of ideas for sequencing. Behavioral analysis can never stand apart from the subject-matter being taught. It is always concerned to describe responses that constitute appropriate behavior in a subject-matter. As a result, behavioral analyses of both terminal and component behaviors must always be specific to a subject-matter. Certain subjects—mathematics comes immediately to mind—seem to have an inherently logical sequence. The identification of such logical sequences or, in less well ordered subjects, their creation, depends upon a very detailed and sophisticated knowledge of the subject-matter.

As we saw in the case of reading, behavioral analysis can rarely be accomplished by the psychologist alone—unless he is also very knowledgeable in the subject-matter being taught. On the other hand, few scholars are used to dealing with their specialties in behavioral terms. They tend to treat their materials as a “body of knowledge” and not as a complex set of responses to definable stimuli. Thus it is unlikely that analysis for instructional purposes can be left up to the content specialist alone. What is needed, instead, is some form of cooperation between psychologist and content specialist. Whether one “trains” the other in his specialty or the two work collaboratively is a matter to be worked out, perhaps differently in every case. But programmed instruction will make no major practical contribution to education without such cooperation in some form.

While analysis of the subject-matter may suggest logical sequences, the body of psychological studies concerned with “cognition” may help in suggesting psychologically valid teaching sequences. A large and growing number of studies in psychology are concerned with identifying and describing the processes involved in perception, thinking, problem-solving and other “cognitive” activities. An important group of studies (e.g., Inhelder and Piaget, 1958) seeks to discover the “natural” sequences through which individuals pass in the course of their cognitive development. While not usually tied to any single curricular subject, these studies are nevertheless concerned with detailed description and explanation of specific mental processes. They represent, as it were, an attempt to give substance to the covert behavior chains postulated by operant conditioning theory to account for thinking. Thus, they make an essentially substantive contribution to a theory of instruction.

While modern studies in cognition are rigorously experimental, they generally do not share either experimental method or analytic language with operant conditioning studies. What is more, since relatively few cognitive studies

begin with an instructional concern, their findings are not usually cast in a form that makes them immediately applicable to teaching. Some "translation" and interpretation, therefore, may be necessary if their findings are to be used within a framework that takes operant conditioning as the basis for instructional method. Such translation, or indeed any attempts to integrate these two branches of psychology, should be richly rewarding to those concerned with instructional theory and practice.

Shaping discriminations

From the instructional point of view, a second shortcoming of laboratory studies of shaping is their almost exclusive concern with establishing new responses, most often motor responses. Very little attention has been given to the problem of how to shape up discriminations or establish stimulus control. In this matter, the learner has usually been left to his own devices, while the experimenter studied learning and acquisition curves. Yet the need for a body of concrete knowledge concerning shaping procedures is, if anything, greater in the area of discrimination learning than in the area of motor responses. This is not only because discrimination and stimulus control are the more pervasive concerns in the curriculum, but also because the shaping of discriminations inevitably requires the experimenter's or teacher's manipulation of stimuli. If it is uneconomical to begin teaching a new response without at least a tentative plan for the steps to be followed, it is simply impossible to proceed without such a plan in teaching a discrimination.

There are a few studies in which techniques of shaping up discriminations have been explored, and these, of course, are of particular interest. In the animal laboratory, Herbert Terrace (1960) has shown that when $S\Delta$ (the negative stimulus) is introduced soon after response to S^D (the positive stimulus) is established, and when $S\Delta$ is, at the time of introduction, different in several dimensions from S^D and gradually changed until it differs in only the single relevant dimension (color), pigeons can learn discriminations without ever responding to the negative stimulus. What is more, the birds that learn the discrimination without errors show essentially more stable performances. Using pre-school children, Wells Hively (1962b) has explored the effects of various manipulations of stimuli on the learning of a discrimination. The task in his experiments was "matching to sample" and the stimuli were rather complex geometric figures. Techniques of "fading" (i.e., $S\Delta$ is first presented very faintly, then becomes darker), of making stimuli successively more complex and similar to one another, of withholding $S\Delta$ until response to S^D is established, of using position in an array as a prompt, as well as simple length of practice were explored. In an unreported experiment conducted at Harvard, Sidney Bijou taught young children, some of them mentally retarded,

to match complex geometric figures even when they appeared in different rotations on a plane surface. Next the children learned to discriminate mirror images of these rotated figures from "direct" images. In terms of a theory of shaping, one of the most interesting aspects of Bijou's work is that he became successful only when he introduced a form of successive approximation in which the mirror images ($S\Delta$'s) were gradually built up out of figures that, upon first introduction, were quite different in form from the direct images (SD 's).

In much verbal, as opposed to perceptual programming, the problems are somewhat different. Often discrimination *per se* poses no problem. Rather, the task is one of establishing control of clearly discriminable stimuli. However, as has been pointed out earlier, stimuli and responses are frequently related to one another in complicated ways. A theory of shaping or "programming" for such tasks must consider how the student's attention can best be directed to the critical elements of the total stimulus context; how establishment of one part of a repertoire affects learning of subsequent parts; how exposure to $S\Delta$'s affects learning of SD 's, and other such questions. In this area, most of the investigation has come from programmers rather than laboratory experimenters; and a growing body of literature is becoming available concerned with techniques of prompting, arranging, and sequencing stimuli, and eliciting responses (e.g., Eigen, 1959; Homme and Glaser, 1960; Klaus, 1961; Mechner, 1961; Resnick, 1962). Many of today's papers on programming techniques represent little more than catalogues of procedures that have worked. Yet through them programmers are communicating with one another; and ultimately, probably with the additional help of some controlled experimentation, a more unified and generalizable theory of shaping in verbal programming may emerge.

PROGRAMMED INSTRUCTION AND THE DISCOVERY METHOD

In its insistence on small steps, current programmed instructional theory is at odds with another widely acclaimed approach to teaching, the "discovery method." In the opposition that is frequently set up between the two, discovery is usually considered the more appropriate method for teaching understanding and problem solving, while programmed instruction is given the job of rote, factual training. This sense of opposition, however, probably derives as much from the kinds of teaching problems the two have chosen to study as from the nature of the methods themselves.

While there is no clear consensus as to exactly what constitutes the "discovery method," it is possible to pick out certain common elements in the various uses of the term. The method as I understand it typically poses a problem

for the learner to solve. Often the solution to the problem involves stating some kind of "law," or rule, or formula relating observed or described events and applicable to future problems of the same type. Thus the noting of relationships and the statement of summary principles—both frequent criteria of "understanding" and both known to be conducive to transfer—are highly prominent where discovery is used. In some cases "hints" are offered to those students who need them; but when well used the method does in fact require the student to figure something out for himself—that is, to come up with an answer without continuous prompting and guidance from the instructor.

There are apparently wide differences of opinion concerning how much guidance may be offered the student without destroying the essential character of the discovery method. However, most proponents of discovery teaching would probably agree that, if the method is to be successful in teaching something besides tolerance for frustration, the student must be able to solve the problem. To make it more likely that he will be able to do so, the posing of the problem is often preceded by a certain amount of small step instruction (whether consciously "programmed" or not), designed to provide the child with the information, concepts and skills he will need to discover the final solution. Thus, the discovery method is probably rarely used in its pure form; pure discovery would mean, simply, no instruction at all. Instead we might say that small step, sequential teaching is used to teach the component behaviors; but a large gap is left at the point where the components are to be combined. Pure programmed instruction would not—knowingly—leave this gap. That, I think, is the essence of the difference.

What, then, is the educational value of this gap? Three possibilities come to mind, each worth serious consideration. The first is motivational. Perhaps the large step, the gap bridged by oneself, is more reinforcing than the sum of reinforcements over many small steps. If so, the use of discovery techniques would tend to keep the student more interested in the learning process in general, and might even tend to maintain learning over a longer period of time. To the best of my knowledge, we have no clear evidence of the relative reinforcing power of success on large and small steps. There are hints that good students, at any rate, become bored with too many small steps, come to resent the time spent on such programs, and as a result often do not do them carefully. It is far from clear, however, that this phenomenon of boredom exists for everyone. It may be something that only bright, usually successful students feel. These students are used to a feeling of "working" for their success—and achieving it. Without the sense of work, they are not certain of their achievement. For students with less experience of success in their studies, the success itself, insured by the use of small steps and adequate prompting, may be far more reinforcing than the sense of work and "accomplishment" of the dis-

covery gap. From my own experience with deprived, poorly achieving city youngsters, it is my guess that success itself is sufficient to keep such children at a programmed learning task for long periods of time. In other words, the motivational preference for discovery or programmed techniques may reduce itself to a question of whom we are trying to teach.

A second value of the large gap may lie in the role of the trial and error process of finding a solution. Through trial and error the student may "learn how to learn," that is, how to solve problems he will encounter outside the guided situation of the classroom. Certainly the trial and error discovery process is a far closer approximation to the procedures of workers on the boundaries of any field of knowledge than is a small step program. It is this similarity to true scientific investigation, in fact, that has generated much of the excitement about the method (Bruner, 1962). Yet a question can be raised whether the discovery process *per se* actually insures that the student will learn the important processes of inquiry. Does he necessarily learn, for example, how to evaluate his own responses or to judiciously select the next step in the search procedure? Does he learn how to profit from errors—or simply how to tolerate them?

My point here is that unless something in the teaching situation controls the student's behavior, so that he follows a certain kind of productive search process, there is no guarantee that he will learn anything about that process. He may simply make a series of trials at random, "pot-shotting" as it were, and possibly come up with the right solution. And at each trial he may rely on a nod from the teacher or a check with the back of the book for confirmation of his response. If this happens, no evaluation of errors, no setting of one's own response within a larger context for purposes of proof and justification, will occur. Techniques for controlling behavior, so that the student does actually go through more productive processes, vary. Sometimes, the way in which the problem is formulated, joined with a classroom procedure that requires proof of solutions, may be sufficient. At other times, more elaborate and careful training procedures may be required; and here some of the techniques of programming for guiding and controlling behavior may be applicable.¹¹

Finally, the value of the discovery gap may lie in the quality of what is learned. Such a claim is often made by those who feel that the discovery method's emphasis on inclusive relationships and problem-solving processes is enough to automatically justify its use. In the sense of curricular innovation

¹¹ The possibility that guided training in problem-solving procedures can be given is not limited to any particular *kind* of thought process. Intuitive as well as analytic and inductive procedures can be taught, if we can clearly identify what those processes are. Such specification is just as much a necessary preliminary for explicit teaching of problem-solving processes as it is for teaching of more specific skills and facts.

it is certainly true that the discovery method is far more advanced than programmed instruction, which has for the most part concentrated on teaching specific concepts and information, and these not always the newest in their fields. However, rather than deny the relevance of programmed instruction to the teaching of problem-solving processes, I think it is more correct to say that very few attempts to apply its theory and techniques in this area have been made.

Those few attempts that there have been, have for the most part suggested that small step programming techniques are indeed applicable to the teaching of such processes. James Holland, for example, has constructed a program in "inductive reasoning," which produces learning with virtually no errors. Specifically, the task is to generate the next term in a series of geometric figures. These figures vary in color, position, and the number of repetitions without insertion of a different figure. The series become more and more complex as one proceeds through the program. Well educated adults often have difficulty with the last items, although children who have been through the preceding series can solve the later ones quite easily. This is admittedly only a small aspect of what is meant by "inductive reasoning," and I am unaware of any investigation of transfer from this program to other, related tasks. Nevertheless, the program demonstrates that small steps and successive approximation are appropriate for teaching at least certain limited problem solving skills.

In a study of somewhat broader scope, Robert Gagné and Larry Brown (1961) compared three different programs on number series, a "Rule and Example" program, a "Discovery" program and a "Guided Discovery" program. The criterion test required the student to find a formula for the sum of term values in a number series. The formula was not to involve simply adding up the values. The three programs used the same number series, but the Rule and Example program did not even attempt to teach the terminal behavior tested. It simply provided formulas, and then gave the student practice in using them to determine sums.¹² The Discovery program posed a problem—finding a formula—and then provided "hints" which the student used as he found them necessary. Early hints for the most part served to direct attention to the relevant stimuli and suggest that some means of relating them must be found. In later hints the relationship was sometimes actually pointed out. The hints did not necessarily require active response on the part of the student.

In terms of programming technique, the essential difference between the

¹² What is more, in most of the frames of the Rule and Example program, there was nothing to prevent the student from getting the answer by simply adding up the term-values. Thus, many students may not have even used the formulas, much less found them for themselves. It may be that administrative procedure provided some check on the student's procedure, for the program seems to have been administered individually with an experimenter present throughout. My comment is based upon a reading of the program itself.

Discovery and the Guided Discovery programs is that in the latter the hints were not optional—all students used them all—and active response was required in each. Furthermore, the hints in the Guided Discovery program were somewhat more directive in suggesting search or checking procedures. Thus, the Guided Discovery program actually provided more in the way of concrete training in *how* to find a solution than did the Discovery program. As might be expected, both Discovery and Guided Discovery groups did far better on the criterion test than subjects who had had the Rule and Example program (i.e., no training at all). But subjects who had had the Guided Discovery program also did slightly better on the test than did subjects who had had the Discovery program. The results of this experiment suggest that small step programming in how to solve problems is indeed possible, and, under certain conditions at least, may be superior to pure discovery.

In a study of a very different kind, Richard C. Anderson (1962b) is attempting to train children in the logic of scientific problem-solving. Specifically, through a graded series of concept-formation games using cards, he hopes to teach them the strategy of search and proof that involves varying only one attribute at a time and holding all others constant. This is not programmed instruction in the usual sense of either self-instruction or an absolutely fixed sequence. In fact, in later games, the experimenter may change the concept he calls "correct" depending upon the child's behavior, in order to provide the reinforcement of locating a positive instance as frequently as possible when the child is showing evidence of using the desired strategy. It is hoped that once children are fluent in solving card-concept problems, they will transfer the strategy to *logically similar* problems of other kinds. While there is no formal data yet available, preliminary experience suggests that both the training procedure and the transfer test will be successful (see Anderson, 1962a). If it is successful, this work will be important in two ways. First, it will demonstrate that small step instruction is indeed applicable to the teaching of investigative *processes*, and secondly that transfer along a dimension of logical similarity is possible, even where there is no formal similarity of the individual stimuli involved—provided that training has concentrated on logical relationships and not on the qualities of the specific stimuli.

These studies are, we may hope, only the beginning of widespread investigation of the relevance of programmed instruction to the teaching of problem solving skills. In addition to strict programming of these skills, however, there are several possibilities for combining the theory and techniques of programming with some form of "discovery" that may be worth exploring. First, after behavioral analysis within the operant framework has identified a likely sequence for shaping up a skill, it might be interesting to try introducing discovery phases into a program at various points. At each such point, the skills

and concepts needed for solving the problem, or bridging the gap, would be clear from the analysis. With these components clearly specified, it should be simpler to provide for adequate preliminary small-step instruction, hints of the right kinds, and structuring of the problem, so as to ensure solution only by performance of the relevant operations. In addition, the effects on later learning of having learned some component by small step instruction or by discovery might be investigated.

A second possibility of considerable interest is that of using small step instruction primarily to teach a checking procedure, so that the student would be able to evaluate his subsequent responses by himself. This would be helpful not only in discovery teaching, but also wherever production of relatively long and complex responses is involved and "self-editing" is appropriate. Thus, children might be taught to check mathematical solutions by actually trying formulas with sample sets of numbers; or how to check one set of scientific observations against another. Where complex productions are involved, discrimination training procedures might be used to teach students to judge good from bad work, using the productions of others. Once they were skillful in making these discriminations—and only then—they might be asked to judge their own productions, and perhaps to edit them. The great advantage of any such checking procedure is that it reduces students' dependence on others for evaluation or "reinforcement" of their work. Reinforcement becomes, in effect, "intrinsic" to the subject matter.

Finally, experimentation with forms of programmed instruction that in some way vary the amount of prompting, or size of step, according to the student's needs should be of interest. Such adaptation to the individual, of course, is the major rationale for Crowderian-type branching, which also, through its explanatory material, tries to help students examine and thereby learn from their errors. For these reasons, Crowder's programming method has often seemed attractive to those concerned with teaching reasoning processes and other complex material. Among others, the University of Illinois Committee on School Mathematics (1962) has adopted this kind of branching as one of the major means of programming an essentially process- and concept-oriented mathematics course.¹⁸

Nevertheless, the Crowderian technique seems to me to be less than ideal for the purpose. The long texts without active responding, and the exclusive reliance on multiple-choice responses as the means of choosing the next frame mean that the program loses some degree of control over the student's behavior. In addition, the method seems to force the student into making a certain

¹⁸ They have also used a modified form of branching in which the student who makes no errors in a linear-type, short step program, is branched *ahead*, skipping frames designed to give further instruction and practice to those who need it.

number of wrong responses. He is not allowed to simply recognize the inadequacy of his preparation for a problem and ask for assistance. He *must* make an error (often prompted by one of the wrong choices) before the program knows where to send him for help. I am not sure exactly how this pitfall can be avoided. Something more like the optional hints used in Gagné's Discovery program may be one solution. Perhaps, too, instead of providing the student with the correct answer after he has made his response, a program might present a series of "checking" procedures. For the student with the correct answer these checks would serve as confirmation. For the student with the wrong answer, or no answer, they would function as hints, leading to an appropriate solution. In this way, students capable of "discovering" the solution would be allowed to do so, while those needing help would receive it; and both would learn methods of evaluating their own responses.

CONCLUSION

Programmed instruction has been treated in this essay as an attempt to apply the concepts and procedures of operant conditioning theory to the educational process. Operant conditioning has been emphasized because, among the popular rationales for programmed instruction, it seems most likely to provide a basis for fruitful investigation of fundamental learning processes, rather than simple imitation of the more obvious characteristics of successful teaching as we have known it in the past. Focussing even in the laboratory on problems of instruction, operant conditioning offers to educational theory the possibility of precision, without restricting the kinds of teaching problems it can attack.

The precision of operant theory derives from its insistence upon behavioral definition and analysis as a prerequisite to systematic instruction. However, it must be said again that in this matter of definition and analysis, operant theory provides only a bare framework. To become truly useful for instructional purposes, the framework must be filled out. Operant analysis, in other words, offers precision *only* if both stimuli and responses are carefully described. This is a substantive task, which must be performed separately for everything we undertake to teach. I have tried to show that operant analysis can be flexible at the same time as it is precise. By treating patterns and configurations as discriminative stimuli and by relying on behavioral chains in which the individual's own responses serve as stimuli for further responses, it is able to account for transfer, flexibility in form of expression, and other signs of "meaningful learning." These are complex kinds of analyses, difficult to perform and dependent upon a more than superficial knowledge of content and subject-matter. Insofar as analyses of the more complex cognitive behaviors can be achieved, however, we will be in a much stronger position in our

attempts to teach those behaviors, by whatever methods of instruction are ultimately chosen.

Generally speaking, reliance on the operant conditioning framework has tended to limit the kinds of instructional problems to which programmed instruction addressed itself. This was appropriate, perhaps, for the real infancy of the field. It is time now, however, that we attempt to deal with some of the more complex and demanding aspects of the curriculum. In so doing, we may have to call into question certain of the assumptions and orthodoxies that have already developed. If programmed instruction is to contribute effectively to the teaching of problem solving skills, for example, it may have to forget its preoccupation with low error rates and begin to concentrate on how to teach children to profit from those errors they will inevitably make in the course of independent inquiry. Certainly, format and method of presentation will have to be varied to suit the demands of the new learning tasks with which we will be dealing. Further, we may want to investigate applications of operant conditioning's analytic and shaping procedures not only to self-instruction, but to the design of instructional procedures of all kinds, some involving important components of social interaction.

Whatever specific modifications may be made, however, there are certain principles to which I think investigations of programmed instruction ought to remain firmly committed. These are the notions, first, that even in the most complex of subjects explicit instruction can be given; and second, that the way to approach an instructional problem is analytically, seeking to build complex behaviors out of simpler ones. These ideas form the hard core of programmed instruction, so to speak, the basic principles that should not be compromised.

By explicit instruction I mean the deliberate modification of the behavior of other human beings. Programmed instruction, in other words, is not interested in the teacher as stimulator of interest, role model or evaluator of progress. It is interested in him as instructor, or controller of behavior. This means that programmed instruction is applicable only where we do in fact want to change behavior in a given direction. There are cases where for political or ethical reasons we do not want to. We do not, for example, want to train all students to be active partisans of a given political or religious viewpoint, or make everyone like the same kind of literature or music. In such cases, when we honestly do not wish to control behavior, neither programmed instruction nor any other kind of instruction is appropriate. "Exposure" is the most we should attempt.

Often, however, we *would* like to bring about changes in a given direction, but we are unable to specify exactly what those changes are. We know, for example, that there is a certain minimal level of "good" writing or "logical

thinking," regardless of the particular stand taken, that we would like to see all students demonstrate. Exactly what the elements of such good writing or logical thinking are, however, is difficult to say. These are what are often called the "intangibles" or "unmeasurables" of education. In these areas, as well as those in which we do not wish to impose a particular viewpoint, programmed instruction has usually seemed inapplicable.

One cannot but agree that as long as these skills and abilities remain undefined, and therefore unmeasurable, programmed instruction cannot be successfully used to teach them. Rather than give up in this matter, however, I think that what we need to do is devote substantial attention to analyzing precisely those skills that have always seemed somehow undefinable. Just what behaviors are involved, for example, in solving a problem "scientifically"? Precisely what are the characteristics of "good" writing? What do we mean by "evaluating the facts" in a political discussion? Because these questions are so difficult to answer, attempts at programmed instruction in these areas have been few and not usually very inspiring. It should be pointed out, however, that these are neglected skills for *all* kinds of teaching, not only programmed. Rarely are they explicitly taught. Instead, there is a kind of extended "practice," in which problems or tasks of undefined characteristics are set, and the teacher evaluates his students' performance. Often the standards of evaluation are so imprecise that agreement among teachers is difficult to achieve.

Programmed instruction would seek, instead, to create complex behaviors out of simpler ones. This is the notion behind shaping. It is the reason that behavioral analysis and identification of component behaviors is so important. If the necessary component behaviors can be identified, they can be explicitly taught; then the more complex behaviors can be built up. With this in mind, the concept of "readiness" reduces to a question of whether a child can at a given time perform those component behaviors that are to be assumed rather than actually taught. Similarly, "individual differences" can be to a large extent viewed as differences in the component behaviors that individuals can already perform. This, rather than "maturation level" or "general ability" seems to be a fruitful way to look at differences among students, whether within or between age groups. Rather than specifying grade or ability level for a learning task, then, one would begin by describing in detail what would constitute skillful adult performance, and then seek to identify component behaviors for that performance.

Only with extensive behavioral analysis of the kind proposed here can the insights of operant conditioning theory be systematically applied to educational problems. Yet even then much work will remain. Examining operant conditioning theory in the light of demands peculiar to education, one is forced to conclude that while the basic concepts of reinforcement, stimulus

control and shaping are indeed powerful, the theory is in few areas fully developed in such a way as to be directly applicable to the design of instructional procedures. Substitutes for the primary reinforcers of the laboratory and methods of using reinforcement in relatively uncontrolled educational situations must be found, for example. In the matter of shaping, a more detailed procedure for teaching discriminations should be developed. Attention must be paid to techniques of teaching several related responses or discriminations simultaneously. That these needs and others like them still exist means that those interested in problems of instruction have more than a technological task before them. They cannot simply apply a ready-made theory from the laboratory and expect it to produce astonishing results. There are important questions about learning and teaching processes that still need answering. There is room, in short, for basic research oriented toward the development of a viable instructional theory.

Research with the demands of education in mind, however, is not the same as "action" or "applied" research. Wholesale comparisons of teaching methods—"conventional" versus self-instructional, for example—may prove that one works better than another in a given case, but it will never make clear just what variables account for the superiority of one method over the other. As a result, the findings will not be generalizable to new problems. Such studies may have administrative value but they offer little to a theory of instruction. The point is not to do research *in* an educational setting but to do research that will be valuable *for* education in a broad sense. Such research may be performed in the laboratory as well as in the classroom; but the kinds of questions that receive attention will be different if the impetus for research derives from educational rather than laboratory concerns.

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What are the aims of moral instruction? What is the relation between knowledge and virtue? Is the school responsible for the moral conduct of its students? Considering these questions, the author argues for rigorous intellectual activity which will promote moral conduct but may not insure it.

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Criteria for Success in Moral Instruction

This paper is prompted by Israel Scheffler's treatment of "teaching and telling" in his recent book *The Language of Education*.¹ In that analysis he draws distinctions that are crucial to an adequate discussion of what is involved in moral instruction, distinctions which prompt further inquiry and raise many important questions. Professor Scheffler ends his book with the suggestion that some problems that he discusses need further exploration. This paper is an attempt to explore one of them. One major issue that arises from his analysis is the delineation of the school's role and responsibility with regard to moral instruction, and, more basically, an adequate definition of "moral instruction" and a description of what this involves.

Scheffler demonstrates that there are many ambiguities in the concept of moral education, some of which are the result of a peculiar linguistic ambiguity involved in norm-stating sentences. The ambiguity results from the fact that there are two possible interpretations of "teaching that" statements. The example used is: "X taught Y that honesty is the best policy."² This sentence can be given an active or a non-active interpretation. In a *non-active* inter-

¹ *The Language of Education*, Springfield, Ill., Charles C Thomas, 1960, pp. 77-101.
² *Ibid.*, pp. 78ff.

pretation, for X to be successful in teaching Y that honesty is the best policy, Y would need to demonstrate that he had learned the statement and that he believed it, but *acting* honestly would not be an index of success. Thus the test given to determine success in teaching that honesty is the best policy, in its non-active interpretation, would be similar to the test given to determine whether or not X was successful in teaching Y that Columbus discovered America. On the other hand, it is possible to give an *active* interpretation of norm-stating sentences so that success in teaching that honesty is the best policy would be determined by examining Y's conduct in certain situations where the norm of honesty could be invoked and acted upon. Scheffler's major point is that since this basic ambiguity exists, it is possible to shift between the two interpretations with the most undesirable practical results. We may begin with an active interpretation of such norm-stating sentences, shift in the process of instruction and test to a non-active interpretation, and finally presume that we have been successful in moral instruction in the *active* sense, whereas we have actually taught and tested for knowledge as interpreted in a non-active sense.

Scheffler's analysis is most helpful in clarifying a basic ambiguity that bears directly on problems of moral education. When it is taken together with other subtle distinctions that he makes between types of knowing and teaching, it gives us a series of important insights as well as a method for treating certain crucial issues involved in moral education. It does not give us an indication or suggestion as to a desirable and reasonable interpretation of the role of the teacher in moral instruction, and of the criteria for his success in such instruction, although there seem to be indications of Scheffler's views on these matters. These issues will now concern us here.

The "aims" of instruction are usually stated vaguely. They often exist as a facade behind which the actual process of instruction can go on undisturbed. If we want a true indication of what the aims of instruction are in any given course, we must look to the examinations that are given to the students, and to the criteria used by teachers for measuring success on the examinations. If we are engaged in teaching "critical thinking," "art appreciation," or "moral conduct" we can get a clue as to the actual working definition of these terms as well as the actual aims of instruction by looking at the knowledge or behavior that students are expected to exhibit on the successful completion of such a course. In this way we can determine the actual aims or content of instruction. It is for this reason that the postulation of criteria for success is a crucial consideration in all teaching, but particularly in the ambiguous area of moral instruction. If our aim is real, then we teach for its acquisition, and try to test for it. This does not mean that we must use a direct method of teaching. It might be done by indirection, by precept and example, by expect-

ing certain learning to "transfer" from one area to another. But the tests should be specific and clear to insure that we have been successful in attaining our real objectives. Then these tests would be an index of the actual content of instruction. Of course I do not mean to suggest that the present state of sophistication in test construction is such that test results can be an accurate indicator of success in all areas. Such is far from the case. We cannot successfully test everything that is taught for, although we should attempt to, for it is essential to clearly delineate the capacity that we expect students to acquire by the end of the teaching interval. We do not derive our aims from our tests but our tests serve as an indicator of what the actual aims are. If we fail to make clear the criteria for success and to establish some means of ascertaining the degree of success attained, then our teaching probably has no conscious aim. We should continue to teach for "creativity," "appreciation," and "empathy" although our present modes of testing are inadequate. However, these capacities need to be much more clearly defined in terms of the actual subject matter of instruction. We may not be able to devise a mechanism to test for these capacities, but we should be able to recognize them when we see them.

What, then, should our aims be when we are engaged in moral instruction? The answer to this question would help us to delineate the responsibility of the school in this regard. Scheffler points out that it is a vague question because of the ambiguity of the term "moral instruction" and he helps to point out the sources of ambiguity, but he stops short of recommending a proper or reasonable answer.

The problem is complicated by the fact that we quite properly mean different things by "moral instruction" at different stages of the child's development. For example, if we are engaged in teaching a norm of honesty, we might construe it in these different ways,³ depending on the maturity of the pupil:

- (1) To teach Y to be honest through habit, using certain sanctions to insure honest behavior. (Training).
- (2) To teach Y that honesty is more desirable than dishonesty. (Teaching the rule and reasons for it).
- (3) To teach Y to believe in the rule that honesty is more desirable than dishonesty. (Teaching the student to reflect on the rule and to provide his own reasons for accepting it.)
- (4) To teach Y to be honest out of conviction, and to ask him to offer objective and impartial reasons for this conviction. (Teaching the student to be committed to certain rules and to act in accordance with his convictions.)

The tests for success in each of these instances would be different. In (1) success would consist of Y's simply exhibiting a pattern of honest behavior; in

³ This schema is prompted by the Scheffler analysis, *ibid.*, pp. 94-95.

(2) the test would determine whether Y could reproduce appropriate statements relative to the belief that honesty is a desirable norm; in (3) the acquisition of the belief itself would be tested by asking Y to give adequate reasons to support the belief; in (4) Y would be expected not only to give reasons for commitment to the belief, but evidence that he acts in accordance with the belief.

Each of these interpretations probably has a valid place in any program of moral instruction, for some might be considered prerequisite to the later acquisition of knowledge or behavior deemed desirable and sufficient for success in moral instruction. The crucial question to be raised is: What are the minimal conditions sufficient to indicate success in moral instruction at the *end* of the teaching interval?

After reading the Scheffler analysis one might be tempted to construe this question in terms of deciding on an active *or* non-active interpretation of norm-stating sentences as a major clue to the definition of success. And at first blush, the answer would seem to be an easy one. To teach someone *about* honesty, or even to expect him to give reasons for holding that honesty is the best policy, would, after all, seem quite vacuous, since we have not taught and tested for moral conduct. Similarly, if we are successful in merely inculcating moral habits, there is no indication that this was done by having our students act out of conviction. We are tempted to conclude that moral instruction consists in the attempt to get students to acquire a norm or pattern of action, and to reflectively support these norms in an "objective" or "impartial" manner.⁴ A necessary condition for success would then be the demonstration by the student of the appropriate moral behavior (acting honestly, paying one's debts, etc.). But this suggests a much more extensive responsibility for the school in insuring moral conduct. It suggests a much more "practical" environment where teaching and test were not "merely intellectual" and where students could demonstrate "actively" the successful acquisition of norms of conduct. The alternative would be to encourage mere verbalism, by turning out students whose beliefs are merely intellectual and unrelated to a pattern of action.

The dilemma is more apparent than real. As Scheffler suggests at one point in his analysis, the ambiguity involved in this discussion can be related to the classic problem of whether virtue can be taught. The crucial case is the one in which the student who demonstrates that he has been taught, in the non-active sense, that honesty is the best policy proceeds to act in ways incompatible with an adoption of the norm of honesty. Scheffler maintains that two interpretations of this case are possible, depending on one's position regarding

⁴ See Scheffler, *ibid.*, p. 95.

the relation between knowledge and virtue. One view would maintain that X had successfully taught Y, but that Y's failure to act on this knowledge can be attributed to a failure of the will. The other view would hold that the teaching has not been successful, since the appropriate moral conduct did not result.⁵

This points up the complexity of problems involved in deciding on the ends and means of moral instruction. Although Scheffler maintains that the problem of the relation between knowledge and virtue is "not as fundamental as it first appears" we soon see that it is the most basic issue to be dealt with in defining the aims of moral instruction, for the basic question here is the criterion for ascertaining success or failure in teaching. The choice is not arbitrary. We certainly have ample evidence to suggest that intellectual apprehension, understanding and avowal of norms do not guarantee an acquisition in conduct of the pattern of action prescribed by the norm. Since the transfer between belief and action is not automatic, the attainment of the aim of moral conduct must, then, involve not only intellectual apprehension and support of norms, but also a training of the will so that the student can bridge the gap between belief and action. This would make the task of moral instruction much more complex.

It is thus that we arrive at the crucial question as to whether the responsibility of the school is to strive for success in the attainment of moral conduct on the part of its students. The answer to this, is, I believe, a qualified "yes". As Scheffler points out, "the inculcation of habits, norms and propensities pervades all known educational practice,"⁶ and teachers' responsibility for this cannot be evaded. It would seem to be true, then, that the school must assume some responsibility for promoting moral conduct. The more interesting question is the extent of this responsibility and precisely how this responsibility is to be fulfilled. Is it necessary to convert the school into a microcosm of society as the progressives would suggest, so that moral conduct in the school mirrors that in the "world outside"? Must we have direct moral training such as we find in religious schools?

In order to answer these questions we must be clear as to what we mean by "moral conduct," so that we can see what would be involved in achieving it.

⁵ *Ibid.*, pp. 83-84. Traditionally, moral philosophers have held that moral training consists not only in leading the student to an intellectual apprehension of norms, but also in a training of the will. Aristotle, for example, emphasized the importance of habituation or practicing right acts, so that the student's will would be trained to do what his mind told him was right. William Frankena puts it this way: "We may perhaps take for granted, then, that the problem of producing virtue in the next generation is a twofold one: (1) that of handing on a 'knowledge of good and evil' or 'knowing how' to act, and (2) that of insuring that our children's conduct will conform to this 'knowledge'." "Toward a Philosophy of Moral Education," *Harvard Educational Review*, Fall, 1958, p. 302.

⁶ Scheffler, *op. cit.*, p. 99.

Again we find Scheffler's analysis most helpful, for he points out that moral conduct does not consist merely in acting in accordance with a norm. Such behavior may come about through compulsion or force, or may be performed automatically. To be properly considered moral, conduct must entail a "reflective and impartial support of norms."⁷ This involves, then, four factors, jointly sufficient to entail moral conduct: (a) belief in a norm; (b) a tendency and capacity to offer a rationale supporting the norm; (c) a disinterested or impartial application of judgment concerning the norm; and (d) a tendency and capacity to act in accordance with the norm. As teachers engaged in moral instruction we may strive to achieve any of these objectives. The manner in which we attempted to achieve them would probably differ in each case because of what is entailed by the objective itself. Nevertheless, as I have already suggested, we would be properly considered to be engaged in moral instruction at any of the levels listed. The crucial point is that if we aim to achieve moral conduct (d) as a result of our instruction, *all* of the above objectives must be met. Can this be accomplished within the framework of the school? Should it be?

I have suggested that striving for moral conduct is a qualified aim of the school. The school's responsibility is not to insure moral conduct, for such insurance is impossible. The school hopes that the student will achieve various kinds and degrees of understanding but it does not insure understanding. Rather, it makes available the means by which understanding can be acquired by presenting data, principles, and techniques to students, and testing for their success in learning these. It teaches for knowledge that promotes understanding. One of the conditions necessary for success in understanding rests with the pupil. We do not speak of failure in getting students to understand as a failure in teaching, unless our lesson has for some reason been incomplete. When we have offered a reasonable opportunity to the student to achieve understanding and he fails to do so, we attribute the failure to the pupil rather than to the instructor. Hence we say that we *promote* understanding rather than *teach* understanding. In this case we assume that understanding will be a by-product of our instruction. We try to make ourselves knowledgeable about those subsidiary learnings that are most conducive to the promotion of understanding and then proceed to teach and test for them. (As Gilbert Ryle has pointed out, this understanding may take place through a process which is not at all "intellectual" in the accepted sense of that term, as when we get a student to understand how to swim, or to understand what tragedy is.)

Perhaps this notion of "promotion" needs some clarification. In his analysis of the uses of the verb "to teach," Scheffler, although not suggesting that

⁷ *Ibid.*, pp. 94-95.

the list is exhaustive, treats three standard uses, "teaching that," "teaching to," and "teaching how to." None of these uses is sufficient to describe what happens when we aim for an acquisition of *understanding* on the part of the pupil, although each may well be involved. Perhaps it would be more appropriate to say that we *teach for* understanding of a certain sort by teaching that, and/or teaching to, and/or teaching how to. The final success in achieving understanding rests with the learner rather than the teacher, although this is not the case (except in a trivial sense) in the three other uses. This, after all, is not surprising, for education, properly conceived, is concerned with the development of the freedom of the learner. It can be distinguished from training in that it involves unpredictable responses at the end of the teaching interval. In order to achieve this aim it is necessary to encourage independence in the learner, and with this independence, responsibility for final learning outcomes. This is what makes the process educative. We promote not only understanding, but freedom as well.

The promotion of moral conduct is analogous in some respects to the promotion of understanding. We cannot teach understanding. Nor can we "teach" moral conduct if we construe it in sense (d) above. What we can do is to promote moral conduct by providing the means by which students can arrive at beliefs, defend them, demonstrate a commitment to them, and develop a method for criticizing them.

We should be careful to note here that these are the very criteria listed by Scheffler for success in the acquisition of norm-stating sentences in the *non-active* interpretation. In his words, "We have gathered acknowledged evidence for such success, of the sorts generally presumed adequate for B statements [X teaches Y that] with fact-stating components, that is, we have questioned Y under controlled conditions, presented various statements for him to judge, gotten him to express inferences related to the component in question, and so forth, but failed to examine his conduct with respect to norm-acquisition."⁸ Success in achieving these aims will not insure moral conduct. But a failure to act morally after the successful attainment of these aims cannot be attributed to a failure in teaching.

If we seriously set about to promote understanding in the pupil we are reasonably specific about the types of understanding we wish to promote. We then choose a set of rules, techniques, and principles which will be most conducive to the promotion of that understanding, and teach directly for them. For the teacher this necessitates a ruthless process of choosing and specifying objectives of instruction, and then formulating means by which these objectives can be most efficiently attained. When testing for the attainment of

⁸ Scheffler, *ibid.*, p. 83.

them, our tests must be specific and must deal with the subject matter chosen for instruction. If our teaching has been successful, learning will have taken place. The knowledge derived will pertain not only to the specific subject matter used as a means of attaining knowledge, but to analogous situations as well. We assume that there will be a transfer of learning to other situations. If such transfer were not possible we would need to start afresh every time we taught anything.⁹

In promoting moral conduct our task is similar. We aim at the acquisition of certain principles, skills and dispositions, but we are definitely limited, for example, in the number of rules and principles that can be taught, and in the scope of skills we can teach for specifically and directly. Here again we must assume a transfer in knowledge of principles, and skills, to wider areas of experience analogous to those taught for specifically in the teaching interval.

In promoting moral conduct, then, we are concerned with achieving objectives conducive to its attainment. Chiefly, these objectives are a knowledge of moral principles, a commitment to certain of them, and the ability and tendency reflectively to support moral convictions objectively arrived at. We have suggested that the true indicator of the objectives of moral instruction is the test that is given to determine its success or failure. How then, would we test for the achievement of these objectives? We could do so by getting our students to present defensible moral positions and to indicate their convictions on ethical issues. We could teach for these objectives by presenting problems for apprehension and solution.¹⁰ Are we then, not open to the charge that the attainment of these objectives, as measured by the tests we have designed, yields evidence only of intellectual apprehension of norms, and that we have not really striven for the attainment of those objectives that will promote moral conduct? We are presenting problems for intellectual apprehension and solution, but the *manner* in which these problems are studied and solved, and the manner in which norms are criticized represents moral activity of a significant kind. If the student is involved in an active formulation, critique, and defense of norms he is engaged in moral activity. Moral instruction thus construed aims at (a) intellectual commitment to norms; (b) reflection and criticism of norms held; (c) inculcation and promotion of a method of objective criticism and evaluation which in itself represents an important form of moral activity. Developing skill in scientific method involves the use of rules of evidence and procedure. Historical analysis involves considerable

⁹ In this regard see Israel Scheffler, "Justifying Curriculum Decisions," *The School Review*, Winter, 1958, pp. 470-472.

¹⁰ These problems, of course, need not be those of "pure" ethical character generally associated with courses in moral philosophy. They might well be issues that arise in the normal course of study that have ethical implications.

honesty in scholarship. The teacher of literature deals constantly with the understanding and resolution of moral problems.

These points suggest two implications. The first is that the process of reflecting on and criticizing norms is in itself moral activity, even though it takes place intellectually. The second is that in moral instruction, as in all other instruction, we assume that there will be a great deal of transfer (intellectual, to be sure) from the limited area of instruction to a wider range of situations in present and later life. In these important aspects moral instruction is analogous to instruction in other areas.

At this point we can postulate a notion of responsibility for the school in moral instruction. It should not aim directly for the attainment of moral conduct except insofar as the conduct can be taught for in the intellectual curriculum. (It is also necessary, of course, to *train* the child in practical moral matters). But that curriculum is pregnant with possibilities for moral instruction. Indeed, it might be argued that the successful teaching of history, literature and science necessitates the reflection on, discussion of and criticism of moral issues in an objective and impartial fashion.¹¹

Thus we see that successful intellectual instruction often involves moral instruction, and that the successful attainment of the objectives of intellectual instruction entails the attainment of skills, attitudes and commitments that are essential to the acquisition of moral conduct. Specifically, this entails getting the student to arrive at a position on issues that are moral, justifying that position, and demonstrating consistency in its application to other moral issues.

This indicates the manner in which moral instruction can take place, as well as the limits of the school's responsibility for it. The school should not directly strive to achieve aims that promote moral conduct except insofar as this is possible and feasible within the bounds of normal intellectual curriculum study. But as we have seen this gives a considerable responsibility to the school for developing habits, skills and sensitivities that are conducive to moral conduct.¹² If the student later fails to exercise these capacities in which

¹¹ Of course, this is not meant to suggest that the direct inculcation of norms should not take place at appropriate points. It is an essential function of schooling. Yet it in itself, as Scheffler so clearly demonstrates, is not moral conduct. However, we should also note, that in using examples of practical maxims such as "honesty is the best policy" and "pay your debts" Scheffler unwittingly focuses too often on the area of practical maxims that are conducive to inculcation by training.

¹² Bertrand Russell shares this point of view. Taking his cue from Aristotle's analysis of the relation between intellectual and moral virtues, he says:

Although improvement of character should not be the aim of instruction, there are certain qualities which are very desirable, and which are essential to the successful pursuit of knowledge; they may be called the intellectual virtues. These should result from intellectual education; but they should result as needed in learning, not as virtues pursued for their own sakes. Among such qualities the chief seem to me: curiosity, open-mindedness,

success has been demonstrated, we must then attribute this to a failure of the will rather than a failure of instruction.

Perhaps the principal point to be made here is that the dichotomy suggested by the distinction between "intellectual" and "moral" instruction is not necessarily valid. As several recent writers have pointed out, the *manner* in which the process of instruction is carried out is a crucial factor in developing moral sensitivity, even in the supposedly "morally neutral" field of science. Demonstrated success in the techniques and procedures of valid investigation and conclusion in these disciplines does represent a form of *moral* activity, behavior which will hopefully transfer to wider areas of moral experience. It is, in an important sense, a training of the *will*.

Now if we return to the distinction posed by Scheffler between an active and non-active interpretation of norm-stating sentences, we see that a strict interpretation of his distinction would insist on a decision between the two. What I am essentially suggesting here is that the (active)-(non-active) distinction, although valid, implies a decision between mere verbalism and real moral conduct. Although a reasonable choice suggests that the desirable alternative is the inactive one, we need not accept the notion that this choice implies condoning a kind of vacuous verbalism. For an "inactive" interpretation, when construed in the fashion that I have described above, can be reasonably considered to be quite "active" indeed. It provides for rigorous intellectual activity that is conducive to moral conduct, but does not insure moral conduct. The choice of this construction would allow for the retention of the academic curriculum with its disciplined modes of thinking that are generalizable to a wide variety of situations. It would help to break down the dichotomy between intellectual and moral education and that between education and training. And it would remove the temptation to make the school a laboratory for experimenting with realistic, life-like situations in order to insure moral conduct on the part of its products. Professor Ducasse's remarks on wisdom might be appropriate here:

The final judgment as to what, for the person whose choice of a course of action is concerned, is the wise, i.e., the best course to choose cannot be made for him by another. What another may be able to do for him is only to *enlighten* his judgment by pointing out to him particular existing circumstances, or particular probable objective consequences of one or another possible choice, or particular kinds of value those choices or their consequences would have, of which the person called upon to choose

belief that knowledge is possible though difficult, patience, industry, concentration and exactness.

Education and the Good Life, New York, Liveright Publishing Corp., 1926, p. 149.

a course of action was not aware. But, once this person has been made aware of all these relevant matters, the final judgment has to be his own.¹³

SUMMARY

To summarize, I have suggested that Israel Scheffler's analysis of certain problems in moral education has been most helpful in clarifying the concept and in posing alternatives for decision. Since his purpose was to clarify and not to direct judgment, he is not responsible for inferences that might be drawn from his analysis. However, his distinction between an active and non-active interpretation of norm-stating sentences tends to create the impression that the normal liberal curriculum, which emphasizes an intellectual apprehension of norms, is impotent in promoting moral conduct because it rests on verbalism. This distinction tends, in its present form, to obscure the responsibility of the school and the teacher regarding moral instruction. One could easily infer that the school must teach directly for moral conduct in practical, life-like situations.

This is difficult, if not impossible, and it is undesirable, for it would, in effect, convert the school into a moral training ground at the expense of its other functions.

I suggest, then that we invoke two other notions of Mr. Scheffler's to help clarify the school's responsibility: (a) Generalizability or logical transfer¹⁴ and (b) the importance of manner,¹⁵ a concept which is stressed rather brilliantly by R. S. Peters.¹⁶ When these two notions are applied to the intellectual apprehension and judgment of norms we see this "mere intellectual process" as a highly active one which is applicable in principle to a wide variety of moral situations. We also see that the student has been trained in the art of judgment and evaluation. Success in this endeavor does not insure moral conduct. Further, it does not even have as an aim of instruction moral action in life-like situations. This is a hoped for by-product of the acquisition of the aims (i.e., it is an *end of education*).

However, it would be dangerous to believe that success in moral instruction in this sense would be trivial or vacuous. For although it is true that knowing the good does not guarantee the doing of it, it is similarly true that an absence of knowledge of the good and skill in judging the good often makes moral conduct impossible, even if one desires to do the good and has the will to do

¹³ Curt J. Ducasse, "On the Nature of Function of Philosophy of Education," *Harvard Educational Review*, Spring, 1956, p. 111.

¹⁴ Scheffler, "Justifying Curriculum Decisions," *op. cit.*, p. 470.

¹⁵ Scheffler, *The Language of Education*, *op. cit.*, p. 58.

¹⁶ Authority, Responsibility and Education. London, George Allen and Unwin Ltd., 1959. "Must an Educator have an Aim?", pp. 83-96.

so. I am thinking, for example, of the American prisoners of war in Korea. Many of them failed to act morally or patriotically because they were utterly uneducated in the importance of or meaning of freedom and responsibility. They failed to understand the aims of the society or of the war. And they failed to see the significance of, or the possibility of acting rightly in a difficult situation. Although the Army now attributes this to a failure of training (poor habituation) it might be more properly attributable to a failure of education in the promotion of understanding, freedom, and the exercise of judgment in novel or difficult situations.¹⁷

Perhaps, then, we have ample opportunity, within the liberal arts and sciences, to engage in moral instruction which will be conducive to moral conduct, but which will not insure it.

¹⁷ In this regard see an excellent paper by Raymond English of Kenyon College, "Political Education: The Urgent Problem," *Teachers College Record*, March, 1961, pp. 485-496.

The claim has been advanced that the attainment of universally applicable criteria of good teaching is impossible. The author analyzes the implications of this claim and presents a counter position.

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Can There Be Universally Applicable Criteria of Good Teaching?

In an article entitled "Educational Research: A Criticism," G. H. Bantock claims that there are, and can be, no universally applicable criteria of what constitutes a good teacher (1961, p. 276). He bases his argument on the fact that teaching is a triadic relation, i.e. it is describable by the form "A teaches B to C." Bantock points out that when we speak of teaching we imply both a direct and an indirect object, in other words we teach something to someone (p. 275). Subjects differ, moreover, in the demands they make on the teacher's capacity (p. 276). For example, having a good voice may be a requisite for the teacher of poetry but not for the teacher of woodwork (p. 276). Since a teacher always acts in concrete situations "which will vary the demands made upon his skill" (p. 277), no general answer to the question "What makes a good teacher?" can be given. At the least, we must consider separately "the French teacher," "the history teacher," "the nursery school teacher" (p. 277).

It is important to examine Bantock's claim and the argument on which it rests for two reasons. In the first place the claim can be generalized so that it extends not only to criteria of the good teacher or good teaching¹ but also to principles of teaching, methods of teaching, and so on. For the argument Ban-

¹ It should be noted that Bantock believes the notion of teaching unsuccessfully involves a contradiction in terms (p. 275); that he does not differentiate the good teacher from the successful teacher (pp. 275-76); and that he views the criteria in question as criteria of what constitutes a good (successful) teacher or good (successful) teaching. For the present purpose there is no need to question these assumptions.

tock gives to support the claim of the impossibility of universally applicable criteria would seem equally able to support analogous claims respecting principles and methods. Now such claims cannot be taken lightly for they deny the possibility of finding general answers to questions about teachers and teaching and, in effect, advise those engaged in educational research to limit their inquiry to the teacher or teaching of particular school subjects. Insofar, then, as Bantock's claim serves as a guide or directive to educational research, it has practical implications of prime importance.

There is a second reason for examining Bantock's claim and argument carefully. In his article Bantock analyzes the concept of "teaching" and from this analysis purports to draw his conclusion about the impossibility of universally applicable criteria. This procedure is presumably an application of his general thesis that conceptual clarification is necessary if educational research is to be successful (pp. 274ff.). But any procedure which results in the attempt to limit inquiry requires analysis. It is one thing to advocate conceptual analysis for the purpose of clearing up ambiguities in the terms employed in research, as Bantock does (p. 272), but it is another thing to conclude from any particular conceptual analysis that certain types of inquiry are illegitimate. One cannot help wondering, when such a conclusion is reached, if conceptual analysis has not overstepped its bounds.

THE ARGUMENT FROM TEACHING AS A TRIADIC RELATION

Briefly, the argument on which Bantock's claim rests runs as follows: When we teach, we teach someone some subject; hence, when we speak about teachers or teaching, we must speak about them in relation to some subject. Moreover, since every subject is different from every other subject, it follows that whatever we have to say about teachers or teaching will vary from subject to subject. To state the case metaphorically, subject matter dictates method.

Now this argument may have initial plausibility insofar as the claim that there can be no universally applicable criteria of good teaching is concerned, for it is true that when we teach we always teach some subject, and it might seem to follow from this that there can be no criteria which are independent of particular subjects. But it is difficult to see how the argument can be thought to function as support for the companion claim that "at the very least one needs to create 'homunculi' called 'the French teacher,' 'the history teacher,' or 'the nursery teacher'" (p. 277). For if the fact that teaching is a triadic relation supports the view that criteria of good teaching must be specific with respect to subject, it would seem also to support the view that they must be specific with respect to student. Why should the B of the form "A teaches B to C" be singled out for special attention and the C ignored? But then, letting P₁,

P_2, \dots, P_n stand for particular pupils and S_1, S_2, \dots, S_n stand for particular subjects, we would not be able to talk simply about criteria of teaching S_1 , criteria of teaching S_2 , etc.; we would have to talk about criteria of teaching S_1 to P_1 , criteria of teaching S_1 to P_2 , criteria of teaching S_2 to P_1 , etc.

Indeed, to be consistent, if the fact that teaching is triadic made it necessary to speak of it relative to subject and student, it would be necessary also to speak of it relative to teacher—the A of the form “A teaches B to C.” Letting T_1, T_2, \dots, T_n stand for particular teachers, then if there were criteria of good teaching, they would on this view be criteria of teaching S_1 to P_1 by T_1 , criteria of teaching S_1 to P_1 by T_2 , etc. But the end of making the criteria of good teaching relative is not yet in sight. For it can be argued that “A teaches B to C” is elliptical and that teaching is really a tetradic relation describable by the form “A teaches B to C at D” where D stands for some time period. According to the logic of the original argument, any criteria of good teaching there might be would be criteria of teaching S_1 to P_1 by T_1 at time t_1 , criteria of teaching S_1 to P_1 by T_1 at time t_2 , etc. In other words, we would have to distinguish not merely “the French teacher” from “the history teacher,” as Bantock suggests, but “Jones teaching French to Smith in 1962” from “Jones teaching French to Smith in 1963.” Moreover, if teaching implies some subject and some student and some time, it also implies some place. It would seem, therefore, that principles of teaching would have to be made relative to place too.

Even if we assume that we can exhaust the respects in which criteria of good teaching must be made relative, there is the problem of deciding what constitutes proper substitutions for the various letters of the form “A teaches B to C . . .” It might seem that this question ought to be answered by empirical research and ought not to be decided in advance. But Bantock asserts that “the search for criteria all too often rests purely on empirical grounds” (p. 275). The whole thrust of his argument seems to be that conceptual analysis is necessary in order to determine the proper range of application of criteria of good teaching. If empirical research is not needed in order to determine that criteria of good teaching must be relative to particular subjects, then it would seem not to be needed in order to determine just what constitutes a particular subject (or time, place, etc.) either.

Now it may be fairly easy to determine what constitutes a teacher and a pupil—although one may wonder if a group of persons can be substituted for C or if only an individual person can be—but it is not at all clear what can be substituted for the variables of time, place, and subject in our form. Is it legitimate, for example, merely to distinguish “Jones teaching French to Smith in 1962 in the United States” from “Jones teaching French to Smith in 1963 in the United States” or must we distinguish between “Jones teaching

French to Smith in May 1962 in the United States" and "Jones teaching French to Smith in June 1962 in the United States" and between "Jones teaching French to Smith . . . in Massachusetts" and "Jones teaching French to Smith . . . in Colorado"? Are French and history to be treated as subjects or are they to be broken down, e.g., French into grammar and reading, and history into ancient, medieval, and American?

Surely it will be granted that if we follow the argument from teaching as a triadic relation to what seems to be its logical conclusion, it provides no warrant at all for the view that there can at best be criteria of teaching particular subjects. For according to this line of argument, if there are any criteria of teaching, they will not merely be specific to some subject but will be specific also to some teacher, student, time, place, and, indeed, to anything else, e.g. purpose, in respect to which teaching may be relative. This conclusion presents a gloomy prospect for anyone interested in the systematic study of teaching. Indeed, for all practical purposes it rules out such study. Fortunately, however, there is no reason to accept it. The argument from teaching as a triadic relation to the impossibility of universally applicable criteria of good teaching and the possibility, at best, of criteria applicable to the teaching of particular subjects is simply fallacious.

In recent years writers on education have stressed the fact that "teaching" is a triadic term (e.g. Scheffler, 1958, 1960; Gowin, 1961). In doing so they have been concerned, among other things, to remind their readers that phrases such as "I teach children" or "I teach history" are elliptical. It would be unfortunate if more were to be read into their analyses of teaching as a triadic relation than was originally intended. To argue as Scheffler does (1960, pp. 38-9), for instance, from an analysis of the term "teaching" to the conclusion that "I teach children, not subjects" is not to be taken literally, is one thing; to argue from an analysis of the term to the impossibility of certain kinds of criteria of good teaching, is another.

The argument from teaching as a triadic relation to the possibility or impossibility of certain sorts of criteria of teaching will be seen to be invalid once it is recognized that a term capable of behaving as a relative term can also be used as an absolute term (Quine, 1955, p. 119; 1960, p. 106). "Teaches," for example, is capable of behaving triadically but also monadically or, for that matter, dyadically, tetradiically, etc. We analyze a term to fit our purpose by making explicit in the analysis as much or as little information as is needed. It begs the question, therefore, to say that because teaching is a triadic relation, criteria of good teaching must be made relative, at least to subject matter. For the question at issue is how, given the purpose of constructing criteria of good teaching, we are to construe "teaching," i.e. whether for this purpose it should be analyzed as triadic, tetradiadic, dyadic, etc.

Suppose we wanted to establish criteria for the teaching of children of a particular ethnic group. Such criteria would be relative not to particular school subjects but to a particular type of pupil. "Teaching," for this purpose, would be analyzed as a dyadic term, "A teaches C." On the other hand, suppose we were interested in formulating criteria for the teaching of science and mathematics in high school. Such criteria would be relative to pupil *and* to school subject. "Teaching," for this purpose, would be construed as a triadic term, "A teaches B to C." Now suppose a historian were trying to formulate criteria of teaching which applied to different eras, e.g. criteria of teaching in the 18th century, the 19th century, the 20th century. Such criteria would be relative to time. To determine if they would also be relative to pupil or school subject we would have to examine the historian's purpose more closely in order to see if he were interested in the differences, say, between secondary and primary education or between the teaching of history and the teaching of languages. In any case, time, which does not even enter into Bantock's analysis of "teaching" as a triadic term, would in this context be a crucial element of the analysis of "teaching."

But if "teaching" can be construed as dyadic given one purpose, triadic given another, and tetradic given another, why can't it be construed as monadic given yet a different purpose? Given the purpose of formulating universally applicable criteria of teaching, for example, pupil, school, subject, time, etc., need not be "unpacked" in the analysis of "teaching." There is no reason why for this purpose "teaching" cannot be analyzed as a monadic term.

THERE CAN BE UNIVERSALLY APPLICABLE CRITERIA

The argument from teaching as a triadic relation fails to support Bantock's claim that there can be no universally applicable criteria of teaching; indeed, the argument is incapable of supporting *any* thesis about the range of application of criteria of teaching. It remains possible, of course, that the thesis under consideration is valid on independent grounds, and it is to that question that we must now address ourselves. The reader may have noticed a similarity between Bantock's claim and a view of scientific method widely held today. Such eminent writers as James Conant (1951) and Gerald Holton (1958) have maintained that there is no one scientific method, but at the very best only scientific methods. These writers hold that the search for "the" or "a" scientific method is misguided, for there is no single set of rules or procedures which holds across all sciences; each science is unique and has its own methods. To speak of scientific method as if it were something general, then, is to ignore the actual variations among the sciences.

Now the fact that there are many sciences and that great variation among

them exists is undeniable. But this in itself does not require one to abandon the belief that there is "one" scientific method. As Ernest Nagel has pointed out, any two inquiries

will exhibit identifiable and important differences; and it is possible to argue from these differences to the conclusion that in pursuing their objectives the sciences employ a variety of methods. But it is equally clear that any two inquiries will possess some common features, so that by insisting on these to the exclusion of the manifest differences one can without difficulty maintain the unitary character of scientific method (1958, p. 147).

It is the differences which are uppermost in the minds of Conant and Holton, e.g. the differences in instruments employed, in skills exercised, in points of view, in modes of discovery. Yet the various sciences *can* be examined with an eye to their similarities rather than their differences.

Nagel suggests that common features of the various sciences will become apparent if we focus our attention on the way in which statements in the sciences are evaluated. Indeed, he believes that there is a body of principles which applies to all the sciences with respect to the validation of their claims to authentic knowledge. There is no need to assess Nagel's belief here, for regardless of the validity of his substantive claim concerning scientific method, his theoretical point holds good. Moreover, it is not merely the case that any two inquiries will exhibit common features; in principle, *any* number of inquiries will. It is fallacious, then, to conclude that because the sciences differ among themselves there are and can be no general principles of scientific method. Of course, we might find that the common features exhibited by a variety of inquiries were quite uninteresting to one attempting to formulate principles of scientific method. However, this is not a conclusion that can be reached *a priori*. Whether the common features among inquiries yield interesting or uninteresting, important or trivial, principles of scientific method can only be decided *after* these features have been investigated.

To return to our original topic, it should be clear, in view of the very obvious variation among school subjects, that those concerned with teaching might wish to focus attention exclusively on the differences in teaching one subject rather than another. There is no doubt that skill in using a saw is a requisite for the teacher of woodwork but not for the teacher of poetry, that the ability to determine a student's understanding of Keats is essential for the teacher of poetry but not for the teacher of mathematics, that knowledge of the best order for introducing algebraic concepts is necessary for the teacher of mathematics but not for the teacher of French. However, just as the various sciences exhibit common features, so does good teaching of the various subjects; and, if one wishes to focus attention on them, one can.

If the features common to good teaching of the various subjects are emphasized, then criteria can be formulated which apply not merely to the teaching of a particular subject, but to the teaching of all subjects. It seems clear, therefore, that the claim under consideration is untenable. In denying the possibility of universally applicable criteria of good teaching and asserting the possibility of, at most, criteria of teaching particular subjects, Bantock overlooks the simple theoretical point that any group of things will exhibit common, as well as differentiating, features. That the features common to teaching the various subjects will lead to the formulation of uninteresting, unimportant, and unhelpful criteria of teaching is, of course, a possibility. But on the one hand, it should be recalled that the claim in question denies the possibility of any sort of universally applicable criteria of teaching, not merely the possibility of interesting or helpful criteria. On the other hand, even if the claim were limited to the denial of interesting or helpful universally applicable criteria, it would be invalid, for the question of the importance or helpfulness of the criteria cannot be decided in advance.

CONCLUSION

We must conclude that the argument from "teaching" as a triadic term does not support the claim that there are and can be no universally applicable criteria of the good teacher. Moreover, on independent grounds the claim can be seen to be unwarranted. Educational research can continue to seek an answer to the question "What makes a good teacher?" if it wishes; inquiry into teaching in general need not stop. This is not to say that such inquiry will necessarily be successful or that universally applicable criteria of good teaching which are fruitful will be discovered. But it is to say that Bantock has produced no grounds *a priori* for supposing such research to be doomed to disappointment.

Bantock is surely right that conceptual analysis is needed if educational research is to be effective. Moreover, there is every reason to believe that its relevance for research does not consist merely in the clearing up of ambiguities in the terms used by scientists. But it is very doubtful that conceptual analysis has the power that Bantock would attribute to it, namely that of providing a rationale for placing a straitjacket on the scientist. In using conceptual analysis to this end, Bantock does it a disservice. For who is going to take seriously the valid, but modest, claims for conceptual analysis in the light of the rash, invalid use of it to restrict inquiry?

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In their recent book, Education and the New America, Solon T. Kimball and James E. McClellan, Jr., examine the nature of educational commitment appropriate to America's changing society. Their position is discussed by Theodore Brameld, Daniel H. Calhoun, and Kathleen Gough, followed by replies from the authors.*

Discussion

EDUCATION IN AMERICA

THEODORE BRAMELD

Speaking of the current debate in education, Professors McClellan and Kimball say: "We are faced here with an almost inexplicable conceptual opacity" (p. 21). I am unable to formulate a sentence that so neatly epitomizes my judgment of their own book. It should not have been published without more strenuous effort to sharpen its thinking, to improve the often cumbersome and tedious style of its anthropologically oriented sections, and above all to eliminate its profusion of overstated arrogances and underdeveloped contentions. It is with regret that I speak so bluntly, for I had welcomed the announcement of this book with great expectations. Here, at last, a philosopher and anthropologist were joining hands in a groundbreaking interpretation of the cultural-educational situation—just the kind of interdisciplinary undertaking that I have been urging for a long time. But the product is not only much more disappointing than one should anticipate even from a pioneering effort; it is frightening. If two well-informed, fairly young and enthusiastic scholars trained in two major disciplines can provide no more by way of new directions than this book provides, what hope is there for education in the "new America"? Despite some insights and astute comments, it is a testimonial to the failure of most educational theory today either to perceive or to assume the responsibilities that ought to be primary in so critical a time as our own.

This negative evaluation is all the more regrettable in view of the positive thesis that the book propounds. Although even this thesis is concealed behind facades of opaque language, as if the authors were never quite secure enough

* Solon T. Kimball and James E. McClellan, Jr. *Education and the New America*, New York: Random House, 1962.

to bring their deepest concerns out of hiding, I trust that it focuses upon the quest for personal commitment in the midst of an impersonal, corporately organized society. Few would deny the urgency of such a quest—indeed, it has been recognized in various forms, at least since Marx's clairvoyant treatment of the phenomenon of alienation. But the evidence provided in support of the shift from agrarianism to metropolis to corporate superstructures, though sometimes impressive, is more often either hackneyed or open to questions of accurate interpretation.

Of many examples that could be cited, consider this statement: the reconstructionist movement in education (which, incidentally, is condescendingly dismissed) "peculiarly fails to understand that whatever potential influence in social change the school may possess comes from its close, interdependent involvement with all the other institutions in the society" (p. 15). As one who is sometimes classified as a reconstructionist, may I merely indicate that this statement is false. If there is any one principle upon which every educationist of this inclination whom I know is fully agreed, it is precisely that effective education is always inextricably involved in "all the other institutions in the society."

In one sense, however, this statement is much more than an example. It exposes the inadequacy of the authors' own attempt to resolve the problem of commitment. For, while on the one hand they rightly contend that the school requires "close and functional ties to other clusters of institutional power," (*ibid.*), on the other hand they astonishingly conclude that commitment is achievable through education that is "*indirect* rather than *direct*, *cognitive* rather than *emotive*, *partially* rather than *fully participative, symbolically constructed* rather than *historically experienced*" (p. 284, *italics theirs*). This statement, like countless others, is never elaborated to the point where we can grasp unequivocally what might be intended. Certainly, on the surface, it appears to be in flat contradiction to the preceding quotations. At any rate, later on, we do learn that this kind of education is to be developed by projecting adult models of intellectual discipline upon the childhood and adolescent years.

And what are these models? The authors call them "disciplines of thought and action" which, in order to be a "bit more precise," are designated as logic and mathematics, experimentation, natural history, and esthetic form. Aside from questions of how much the four groupings leave out, and whether they are even logically comparable categories, we are then suddenly informed without apology that they are not to be regarded in "behavioral or operational terms." Hence it is "outside our immediate purview" either to discuss what "one would *do* to teach these disciplines" or what "students would *do* to learn them . . ." (pp. 297-303).

Nevertheless, while thus avoiding the very methodological issues that might conceivably enable us to judge whether this proposal makes any kind of educational sense, we are also told that, if it were adopted, "commitment to American culture is at last possible"—commitment, that is, to "the primordial rules of thought that guide our most fundamental interpretations of the world" and "institutionally legitimate modes of control" (p. 303).

Understandably, the authors are troubled, however, by the realization that commitment to "disciplines of thought and action" is too cold-blooded, too remote from the battlefields of cultural conflict and evolution, to carry any emotionally stirring connotation. And so, with a kind of desperation at the very end of their book, they try both to ground them in a murky classical realism and to surround them with a moral aura that remains even more obscure.

The moral aura remains obscure because, for one thing, the authors commit the naturalistic fallacy of deriving normative judgments about their commitment from descriptive judgments of the present corporate supersystem. Thus, "knowing oneself as a part of a social system *is* accepting the moral demands inherent in that system. . . . To ask anything more from commitment is to erect symbol systems into absolutes" (p. 313). This illicit leap from description to prescription (not to mention the *non sequitur* of the second quoted sentence) is repeated several times. I am afraid, therefore, that I shall have to become one of the unfortunates of whom the authors speak in the final line of their interesting footnotes: "But we despise, in advance, the critic who objects to our conception of education on the grounds that it lacks a sufficient basis in morality" (p. 378). For I do object. The book not only lacks a "sufficient basis in morality," it helps to justify at least by default many of the immoraliities of the social system which we are expected to "know" through the recommended disciplines.

It is, moreover, scarcely inconsistent with the culturally conservationist tone and treatment that no attention is given to the place of the "new America" in the world of nations. How it becomes possible for a philosopher and an anthropologist to discuss and accept the one while avoiding almost one hundred per cent its envelopment in the other is not answerable by reminding us that the book is not about international relations. The point is that one of the most crucial, if not the single most crucial, of all facts about the "new America" is that it is part-and-parcel of a "new world." Many of the very changes in social structure, for example, that the authors describe are increasingly becoming as integral to the countries of Europe and Asia as they are to the United States.

The problem of commitment should be attacked in the context of this revolutionary truth. But it is not a truth merely. It also generates purpose—a very rich and exciting new purpose toward which the energies of education should

now be directed. In the process of such generation, the disciplines of which the authors write are surely among the indispensable ones. In and of themselves, however, they remain largely amoral or, at best, instrumental, just as does the social system they reflect and reinforce. Thus they do not actually solve the problem of commitment. On the contrary, they help to perpetuate that problem. For they easily divert us from attention to other, more controversial tasks—particularly that of determining how education may share powerfully in commitment to, and struggle for, the creation of a viable world community of self-directing peoples. Like so many theorists in contemporary education, Professors McClellan and Kimball perhaps regard this task as irrelevant to their concern with "a rationally disciplined, objective grasp of the fundamentally impersonal structures and processes that constitute our physical and social world" (p. 307). If so, as is likely, they thereby assist in keeping teachers and students safe from involvement in the kind of reconstructive actions which commitment to a democratic world community demands of any education that is, as it should be, closely and functionally tied to "other clusters of institutional power."

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The authors of *Education and the New America* want Americans to accept the corporate society as here to stay. They want the schools to educate for membership in that society, not for solitary self-fulfillment. They believe that whatever our society may have been in the past, it has become one in which opportunity lies in large organizations; that the individual must expect to move from one organizational context to another, functioning effectively in each situation without becoming bound to it; that such contexts offer a more drastic contrast to family life than did work contexts in earlier periods; that the school must therefore serve as a bridge by which individuals manage the transition from the nuclear family to the "production team"; that the school may accomplish this by building in each student a capacity for group commitment that is readily transferable from one group to another; and that the school may attain transferable commitment by seeing such commitments as an intellectual quality rather than an emotional one, to be produced therefore by training the student to a capacity for critical analysis and for productive intellectual discipline.

At the point where they begin to see group commitment as an intellectual quality, demanding specifically intellectual training, they move beyond any mere restatement of the hard-boiled organizational ethos. Arguing in the

same vein as did some of the mid-nineteenth-century spokesmen for mental discipline, they finesse any controversy between intellect and morality by insisting that the peculiar features of twentieth-century society make intellectual training itself the best moral training. To a generation that has seen subjectivity and local ethos destroy liberal hopes, intellectualism must be persuasive, but it has disturbing overtones. The social relation it takes as type is the service that the analytical mind gives to the purposes of successive groups; the groups provide purpose, and the criticism that the mind brings to the group takes as its own criterion structure, not the felt goals of any person within the group or of any society larger than the group. The society built of such relations would be a society of committed cold fish. Kimball and McClellan are not "against" the purposes either of individuals or of broader, class-like groups. But their rhetoric states such purposes in incidental phrase, not in the main push of assertion. They elaborate a scorn for "self-fulfillment" that reduces it to selfishness. Even when they call for "freedom and autonomy" in the schools, they do so in terms that sound like the "liberty to teach the truth" that is familiar in other contexts. They pay only minor attention to the purposes of any groups that do not fit the corporate pattern. They can thus subsume the claims of the Negro on American schools under their general insistence on the function of nondiscriminatory treatment within an organizational ethos; and they can write, "The opportunity offered to immigrants to join the American social order as full members of it was, and still is, the most significant anti-slavery cause in the history of the human race" (p. 285).

Intending to participate in what they call the "great conversation" about American civilization, they state as part of their own assumptions a view of the past that is typical in much recent discussion. Although they rise to occasional skepticism about just how "agrarian" the old America was, they believe that American society has rather recently undergone a sharp transformation from "agrarian" to "corporate," that the social and moral problems of the newer America are unique and unprecedented, and that this chronological cleavage gives urgency to the project of constructing new, tough acceptances. This view does acknowledge that major change is gradual, and that steps toward the corporate society were being taken during much of the nineteenth century; but it protects its sense of a cleavage at the end of the century by assuming that the steps taken earlier were largely unconscious. Actually, explicit debate marked almost every step in the development of the corporate ethos. Over the nineteenth century that ethos succeeded to the claims that an older communal ethos exercised over and against individuals. The transition from local leadership groups that established both academies and local transportation monopolies, to the groups that promoted larger transportation companies as devices in the growth of particular localities, to the men who cut

corporations loose from local identity, was a smooth transition that never yielded dominance to individualism, either rampant or pure.

At the beginning of the nineteenth century, the corporation was a device already much used for social purposes, a device bound in its membership and outlook to the local group. The ideal education of the period bore an unstable relation to this orientation. Individuals were to be molded to piety or to republican virtue; the more able among them, once beyond a basic schooling, were to explore the wider realms of classical, practical, scientific, or theological culture. But Americans feared the wider culture as much as they desired it. Knowledge brought from outside would, they hoped, redound to the benefit of the locality itself, and would insulate both the educated man and his neighbors from the impact of remote standards. The ideal educational product was the scholar in his parish, whether that parish be Ipswich or Charlottesville. Men feared anyone's getting too much education abroad, and they imposed suspicion on the immigrant expert. The motivational structure of the educated career formed a bridge from the paternal resentment against a Noah Webster's attending college, to the ambition that appeared later as frontispiece to Webster's speller, showing the child climbing to a far eminence in hope of "Fame." There was thus a problem: was the individual really free to adjust his ambition to wider, more remote, more analytic cultural standards, or was he bound to locality and its need?

In the outcome, those individuals who opted for the wider perspective, even though trying to promote the vitality of local economic or local educational systems, kept facilitating the moves by which such units expanded beyond their traditional limits. The expansion of railroads was caused by the investments and competitive moves of particular business operators, but these were often accompanied by conflict between local desires for decisions that would serve local interest and the more abstract desires of middle-level or technical executives, desires for some rational policy that might be adopted naturally if only the local unit were absorbed into a larger frame of reference. Similar tension, successively resolved toward larger units of organization, characterized educational systems quite as early as it did business systems, and does not appear to have involved crass imitation of business practice. These expansions meant that, whatever financial manipulations characterized relations between whole business units and the outside world, or whatever political manipulations characterized relations between whole educational units and the rest of society, the internal lives of such units provided widening scope for the self-consciously rationalistic administrator. Intrusion on this internal life by the boundary politics of the system occurred, but was recognized as abuse. Much more typical, stigmatized perhaps as priggish but not as illegitimate, were the efforts that the rationalizers made to promote further

expansion, thus pushing the frontier of each organization out to a remote horizon where it could not disturb internal sanity.

This expansion brought realization to one emphasis of the Federal-Republican generation who had hoped to educate men in a broader rational culture while retaining them in commitment to a local, communally corporate society. The educational goals that men entertained at the beginning of the nineteenth century were not very different from those outlined now by Kimball and McClellan: the combining of rationality with an ability to serve well-defined corporate or organic units given within the society. The fact that the rationality did press beyond the local bounds set for it suggests that the critical, intellectual discipline that Kimball and McClellan espouse can have broader social outcomes than their tough line suggests. The habit of rational analysis, once induced, may corrode even racist metaphor. The outcomes of an educational effort may overleap the immediate commitments that that effort sought to promote. In this sense the Kimball-McClellan approach functions as another but most subtle of those smokescreens by which educational spokesmen have offered to the going order a set of "institutionally legitimate modes of social control" (p. 303) while themselves believing that those same disciplines would promote creativity, courage, and openness to change.

The difficulty is that such nonorganizational virtues, while not *unintended* results in the Kimball-McClellan scheme of things, would be *untended* processes. Especially would they go untended if they were judged to be personal processes; this is implied by the insistence with which Kimball and McClellan include "esthetic form," history, and social study among the "wholly impersonal" or "fundamentally impersonal" disciplines.

This point touches on another matter of perspective. The problems of membership and commitment, as men argued them in America from the seventeenth century on, are at least as relevant to twentieth-century education as are the more recent life patterns of the Irish peasant or the Navaho. At various times over the first century of European life in America, men saw as difficult the relation between emotional commitment and intellectual commitment (they read it as the relation between real or inward salvation and intellectual training or the external evidences of salvation). They did not, at first, simply dismiss this problem by selecting out one of the two aspects for emphasis. Gradually, though, many did make this selection. Sectors of the religious and educational world that were striving for upward mobility did try to stress the external over the emotional in their conceptions of commitment. Not all leapt abruptly to this new view, but there gradually developed a style of thought in which some men who were discussing, for example, the needs of the ministry would relegate piety to incidental phrases while giving more of their attention to the need for intellectual discipline. As if counter to this

style, there developed another that took learning as *prima facie* evidence of insincerity. The conflict between these styles was latent from the first, became sharper through the eighteenth century, and did not lose clarity until the early part of the nineteenth century. One of its precipitates was, in fact, the thin attempt to combine rationality and localism that prevailed in educational impulses of the years around 1800.

There was much realism in emphasis on intellectual discipline and clear-headed analysis, as against older attempts to tie grand theological syntheses to the defining of "real" membership in the local churches. The key leaders of such local membership teams did not in fact come from the locality, and the ideas or literature that these syntheses assumed belonged to a wide intellectual world on which the locality was sorely dependent. But the intellectualizing temper ignored the fact that most men would absorb new rationality as only "a little learning"—that in all too many cases intellect would lead to cant among the fashionably half-educated, thus seeming to justify much of the anti-intellectual response that became recurrently articulate during the second century of American life. When men stopped trying to preserve some amalgamation between different kinds of commitment, they not only risked the conflict between social temperaments that centered on revivalism; they also risked making both the intellectual temper and the anti-intellectual temper so superficial in quality that their later reunion would contribute to the emptiness of nineteenth-century denominational culture: a world of large superstructures in which allegiance to particular local units became readily transferable because it was based on an inability to acknowledge any personal significance in such units. By that time, of course, industrial and professional units were becoming those in which purpose was more real than it was in many denominational units.

One of the most valuable things that Kimball and McClellan do is to demonstrate that the problem of the relation between education and membership has not changed its essential structure just because its vocabulary has shifted from the theological to a merging of the economic and the cultural. The significant categories are those of integrity or purpose on the one hand, and intellectual discipline on the other. It may be that men who fail of commitment with respect to either category, where it is the important one, are slaves in the Aristotelian sense in which Kimball and McClellan use that term. It may even be that capacity for achieving commitment in either respect is distributed most unequally in the population, and that efforts to recoup integrity are just as élitist as efforts to recoup intellect. But American experience has been that a sole concentration on one kind of commitment can lead to bitter revanche by spokesmen for the neglected sphere.

Kimball and McClellan have essayed a work of moral synthesis, achieving

clarity by defining into subordination large areas of the problem. Their impatience with sentimentalism is just; their slighting of the personal, the purposive, and the emotional may be short-sighted.

Harvard University

KATHLEEN GOUGH

Education and the New America is a learned, sensitive, intricate, and to this reader, a profoundly disappointing book. Its theme is the problem of the weakness or absence of individual commitment in contemporary America and the dilemmas which this poses for educators; its conclusion, that the solution of the problem lies primarily in a cognitive understanding of the scientific methods and of the structure of society and one's roles within it, leading to ability to "learn assent to this new society, a society that offers no fixed and eternal ends in life, but only powerful, dynamic means" (p. 17).

The argument includes an historical analysis of social structural and ideational changes in America over the past hundred years and of their impact on the schools. Substantively and analytically, this (Chapters 4 through 9) forms the most rewarding section of the book. Assuming the Middle West to have provided the dominant social forms in America in the second half of the nineteenth century, the authors analyze the interdependence of agrarian and small-town-commercial institutions, the integrity and relative stability of family and local community, and the close interlocking of Evangelical Christian symbols and ideals with the operation of these social groups. The schools of the period, although largely under the control of local authorities, are seen as having provided less of a training in locally valuable skills than a stepping-stone to distant city life for the more adventurous. In the last quarter of the nineteenth century, Progressive Education began to try to prepare the student to take advantage of the new scientific technology and industrial social forms which were invading his local community, while also taking over from family and local community the moral obligation to instill older ideals of individual freedom and equality.

The authors see the boom and depression of the late 1920's and early '30's as "the agonized death throes" of this earlier society (p. 115). In its wake has emerged the new metropolitan urban-industrial culture, characterized by the dominance of large corporate structures in industry, commerce, government and the military, shadowed by the similarly organized and bureaucratized corporations of the churches, hospitals and schools. The larger social classes which once formed residential neighborhoods of holistic communities have become fragmented into narrow social layers, each of comparable occupation and status. These tend increasingly to occupy neighborhoods socially isolated

from each other, yet internally only superficially unitary, since their destinies are largely determined by the great corporate structures, and individual mobility is great. Lacking any deep sense of involvement in the affairs of its local community, each nuclear family becomes culturally isolated, its members being thrown in upon each other and themselves. The family becomes the only institution in which love can be sought with confidence, yet even this love is "not considered a relation in which one loses or even transforms self; rather it is a support in the search for self-fulfillment" (p. 144). The resurgence of interest and membership in the churches is seen as stemming from a need to foster love within the nuclear family as well as to find a locus for sentiments of exclusiveness and identity formerly attached to extended family, social class, and local community.

In this fragmented society, the school's primary role is to prepare youth for the transition from the private world of the nuclear family to the public world of the giant superstructures. It is made difficult by the fact that school administration has itself become over-bureaucratized, to the detriment of learning, and also (among other factors) by such evils as authoritarianism, rigidity, and devotion to anti-human forms of mechanical efficiency found in the corporate structures of the wider society. Hope springs, however, from the recent emergence of more autonomous groups in the production teams of scientists engaged in military research and space-exploration, and pleas are made (Chapter 9) for increased flexibility and self-government within the corporate and educational worlds as a whole.

Commitment, the possession of a clearly defined goal and the willingness to work hard and sacrifice present enjoyments to attain it, is difficult to experience and to teach in the society of mass-consumption, psychic and familial isolation, and geographic mobility, and in the impersonal complexity of the large corporations. Its secret for these authors lies in the belief that commitment in American society must be of a different kind from that found in all previous societies, as well as in the "totalitarian" ones seen as the only major alternative for today. The difference is that in industrial America commitment derives from scientifically rational cognition of the physical and social world rather than from ideologies or from an imaginative-intuitive grasp of the life-process and goals of the holistic community. Thus, because of the size and complexity of institutions and the specialization of functions, commitment is "indirect rather than direct; cognitive rather than emotive, partially rather than fully participative, symbolically constructed rather than historically experienced" (p. 284).

Modern commitment involves also a new understanding of individual morality. Thus morality comes to mean not a matter of personal motives and choices, but simply knowing the interconnections among the varied corporate

structures of the society, fulfilling one's roles within them, and being willing to pay the costs the society exacts in terms of "submission to the discipline of a technological culture—not to technology *per se* but to the forms of rational thought and action and to the ordered relations with others in the superstructures which channel and direct our energies" (p. 314).

In spite of the pleas for reforms and enhanced self-government in the corporate structures, therefore, the key-note of the solution to commitment seems to be acceptance of the *status quo*: "In short, part of the price of being an American is *being* an organization man." The proviso is made, however, that the committed organization man will not be one who simply occupies a niche on an organization chart, but "one who strives to extend the bounds of his own freedom to act with initiative and resourcefulness at whatever level he finds himself" (p. 315). And in this, finally, lies any ultimate purpose which exists for Americans, for it is concluded that "... the final step in the democratic experiment is that the society no longer poses an ultimate meaning to life. Instead it builds within each individual such a complex sense of self that the person is forced to create meaning, order and purpose for himself." The conclusion for the schools is that they should "educate for commitment" by guiding their students through the fundamental "disciplines of thought and action" essential to a rationally ordered, scientific society: namely logic and mathematics, experimental methods of discovery and learning, natural history, and the confrontation, construction, and criticism of aesthetic forms.

Evaluation of this book rests primarily on the degree to which the reader can accept the authors' description of contemporary America and their projection of America's future. For the issue of commitment takes on different perspectives depending on one's answer to the question, "Commitment to what?" Hence our criticisms of this complex book, which are many, will here be restricted to two issues: the authors' assessment of the quality of American society, and the limitations of their approach.

On the first count, the book seems to be a detailed exploration of the writers' ambivalence toward their society, an ambivalence which is never resolved but which culminates in a kind of weak compromise. On the one hand, the society is seen as very bad, at times almost intolerable (see especially pp. 320-321). On the other hand, in its basic framework—the political system, the business corporations, the military and the other corporate structures—American society must be accepted, for the authors can see no alternatives except, on the personal level, withdrawal into cynical exploitiveness, or on the political level, a change to some kind of "totalitarianism" which they seem to feel would be both a triumph of the fascist tendencies already present in the society and also in many ways a mirror-image of the Russian state. Reaction against these possibilities leads the authors in some parts of the book to posit

virtues for American society which they elsewhere deny, so that there are numerous internal contradictions. Thus on page 23 they early admit the basic conflict in American life between "the ideal of critical intelligence" and "the need for unquestioning obedience to the body politic," and this conflict is documented in the sections on vices of the system of educational administration and of the business corporations. On the other hand, we are told on page 314 and elsewhere that "our nation, beyond any that has ever existed, offers freedom, order and opportunity," and are asked to "extend the bounds" of our own freedom within the niches of the corporate structures elsewhere described as stiflingly authoritarian.

Similarly, Chapter 9 explores the "ill effects" and irrational inefficiencies of the concentration of power in the hands of the few in the great corporations as they now exist. Yet by the end of the book we are asked to achieve a cognitive understanding and acceptance of these structures and to see them as "the forms of *rational* thought and action" (our italics) and of "ordered relations with others" to which we must "submit" as our nation's "price" for its "goods" of "freedom from want, from poverty, drudgery, disease and ignorance." Further, the fact of the existence of the "Other America" in which such freedoms have never been attained by some thirty million of the population is never faced as a problem when the question of "commitment" to American society is posed.

Similar contradictions occur over the question of morality. On the one hand, it seems from the terminal discussion that personal morality is irrelevant to life in, and commitment to, the "organization society." All that is required is that we understand and accept its roles and live them out (it is almost playing the game) with as much individual initiative as we can muster (or, one might add, as the authorities will permit us). Yet on the other hand, moral judgments—presumably the authors' personal ones—are made of the structures themselves; for we are told, for example, that the fact that women may not occupy the chief administrative position in Western governments is "in no country morally justifiable" (p. 311).

On balance, the authors' need to give assent to American society leads them to an assessment more sanguine than our own. Thus they write (p. 29) of "an America which has all but solved the problem of physical want, of brutalized personalities, and of demoralizing inequalities." And on page 217, indeed, we are blandly told that "A decent society, such as ours is, separates right conduct from wrong in such measure that it is far more likely that right conduct will happen than wrong" (we are not told how "right" is determined)—and that "We have created a world in which an individual can find it easy and natural to behave decently toward his neighbors, to practice the classical virtues of temperance, magnanimity, and justice, even the Christian virtue of

humidity. The price we pay for such a world is that we give up the belief that there is a final reason, an ultimate meaning, to justify human experience." This makes strange reading in view of the recent fervent demonstrations of Negro citizens for social freedom and equality, and of the police dogs, the fire hoses, the mass arrests, and the jail-beatings with which they have been met. It is perhaps unjust to quote events which occurred after the publication of this book. If so, the race toward nuclear extermination, the irrational hatreds and bombasts of the arms race, the degradations of slum life, of urban renewal and of life on "Welfare," and the less spectacular agonies of the Negro people provide earlier kinds of negative evidence.

The authors' fundamental acceptance of American social structure stems not only from their inability to see viable alternatives but also from the argument that "it works." Thus (p. 13) they write that in the sense of providing "technically trained and properly . . . motivated man-power, American education, like the rest of American society, does work." Similarly the American family, despite its "potently destructive" relationships, also "operates successfully," and finally, "the public, corporate world, despite everything, is *real*" (p. 321) and "Only when the brute, ineluctable is-ness of our social system is accepted can we see what sort of ordering of the elements we started with could properly be called commitment." There is, however, a confusing ambiguity about the meaning of the assertion that institutions "work." At times the authors seem to mean that they work without open and violent rebellion on the part of citizens, for they frequently refer approvingly to the "order" of American society. But in this case the crime rate, juvenile delinquency and racial disturbances call the judgment into question. Presumably "works" could also mean that most of society's members are happy and satisfied; but then why all the bother about commitment? "Works" may, again, mean merely that the bulk of society's members are fed, clothed, housed, and are not conquered by enemies, but surely that is not enough. More frequently, however, "works" seems to mean simply "exist," and that the writers do not envisage any fundamentally different way of organizing society at its present level of technology.

The question then is, of course, how does it work? A student of Brandeis University, writing in the Commencement issue of his college paper, gives us one answer: "How does it (American society) work? By maintaining international alliances with every fascist or reactionary government in the world; by sabotaging unfriendly regimes which threaten the interests of its great corporations; by building a nuclear force capable of destroying every large city (population over 100,000) on the globe 125 times over; by subsidizing an economy that would collapse without enormous amounts of military production; by discountenancing any interference with the structure of its highly unjust

socio-economic arrangements; and by outlawing the only political party which seriously challenges its consensus. If this is the way democracy must work, then democracy is an utter failure and democratic political activity is a game." (*The American Political Game*, by Martin Chuzzlewit, *The Justice*, June 9, 1963, p. 3.) Precisely here, we think, must be sought the reasons for the failure of commitment to the present social structure among a growing number of young Americans. For such youth, no amount of training in "the disciplines of thought and action" will produce "assent" to such a society.

This leads into our second criticism, of the limitations of the authors' approach. Despite their unease, they implicitly rule out *political* action to effect fundamental changes in the structure of American society. True, they have criticisms of the corporations, and a side-reference of approval to the Committee for a Sane Nuclear Policy. But they accept as givens the continuance of the Cold War, the international competition with the Soviet Union, the arms race, the dominance of the economy by private corporations controlling wage labor, the political system, the class structure, the pursuit of private profit through ever-increasing turn-over of consumer goods, and even such adventitious effects as advertising and the correlated degradation of the mass media.

We disagree; for we believe that the present nation state structure is, in its totality, outmoded and anachronistic for modern technology and the aspirations of modern men. A search for "commitment" in modern America must therefore go quite beyond the present social structure; it involves also head-on collisions with the present *power-structure*, and the creation of new political and economic institutions and changed external relations with other societies.

The present social structure is anachronistic in several ways. Nuclear weapons have made international warfare obsolete as a method either of conquest or of national defense. It can now be only a means of genocide, perhaps of universal destruction. This by itself means that the nation state is no longer viable as an autonomous political unit. Meaningful "ultimate goals" for our society can therefore be found in nothing less than the abandonment of the arms race, the surrender of national sovereignty, and the setting up of a rationally organized world administration in planned cooperation with the Communist and the neutral nations. Second, no moral future for America can be found within the present framework of our economic and power relations with the poorer nations. Our prosperity is an insult to the famished peoples of the earth, and our national purpose should be to extend our brotherhood to them, not with special programs and high-handed acts of charity coupled with dictations of their policies, but by sharing equally, again through a world administration in which other societies have as much control over the world's wealth as we do.

Internally, automation and computers are rendering obsolete many forms

of skilled and unskilled labor and creating millions of unemployed. More millions are engaged in trivial or positively harmful occupations connected with the arms race, advertising and unnecessary make-work in the bureaucracies and the distributive system. Our productive potential is so great that we do not know what to do with it, yet public works are inadequate and at least a sixth of the nation languishes in degrading poverty and consequent inadequacy of civil rights. All of this means that the system of private corporations, coupled with wage-labor and uncoordinated by government in the service of the public welfare, is outmoded. Other means, political means, must be found for rationally planning production and effecting a just and egalitarian distribution of wealth and civil rights regardless of whether men work or not.

In short, we require at the least a new form of government. It should, we believe, be committed on the one hand to disarmament and to proposing surrender of national autonomy and sovereignty to a world administrative body drawn from the United Nations. On the other hand, it should be dedicated to carrying through such internal changes of our political economy as shall be required of us both by the delegates of the poorer nations and of the racial and cultural minorities in our midst, as these reach out for equality of wealth and human rights and as they press for the ending of the domination of one people by another. Such a future cannot be planned in blue-print (nor mapped in a book-review). But it is a future worthy of America and, we think, the only one which can command the sustained commitment of the best of American youth.

The only valid commitment for today is therefore, we believe, a revolutionary commitment. We agree with the authors that commitment stems from existing social relations and does not arise out of the blue in the minds and hearts of individuals. Nevertheless, commitment involves imagination, creation, and dedication to the noblest society that men can conceive of. Where existing social relations are outmoded, commitment must be to the new and untried, growing from dissent, not assent, and producing conflict and rebellion, not submission.

Already, moreover, our authors' problem is itself to some extent outmoded. For America has passed beyond the period of alienation, weariness, and dissociation of the fifties, and into new forms of commitment—to which the authors do not refer. But these too exist; they are "brute ineluctable realities" just as much as the outmoded bureaucratic forms. Commitment has already existed for several years in the sit-ins, the freedom rides, and the picket-lines of students and women protesting racial inequality, infringement of civil liberties and preparations for nuclear war. It has now blazed and burst forth in the mass demonstrations of Negroes, whose economic and social demands,

by their very depth, signify not "integration into the burning house" but a fundamentally new and egalitarian form of political economy.

Two documents come to mind which epitomize this growing sense of revolutionary commitment among American youth. One is *Student*, by David Horowitz (Ballantine, 1962), an account of the struggle of Berkeley students against the House Un-American Activities Committee; the other *Freedom in the Air*, a recording made by the Student Non-Violent Coordinating Committee of the Negro struggle in Albany, Georgia. It is such documents, rather than the scholarly work under discussion, which give us faith in the future of American society and make one glad to be alive in this country and this world. Further, the commitment of these youth is the old-fashioned kind. Unlike the cold cognition-and-acceptance brand of the authors, it is the all-or-nothing commitment of will, passion, sacrifice, traditional symbol, slogan and faith; of spontaneous brotherhood and joyous consciousness of kind. Thank God!—America is not so different from all previous and other societies, and "scientific rationality," robbed of passion and personal morality, has not yet dehumanized us all.

University of Oregon

JAMES E. MC CLELLAN

The book under review being the first I ever published, only now am I learning what experienced authors likely regard as axiomatic: one learns what he has written in a book when he discovers what others read therein, he learns what he meant to write by responding to his readers. We are grateful to the editors of this *Review* for giving us three distinguished critics and an opportunity to learn further what we wrote and what we meant to write.

1. Let me begin with a response to Mr. Brameld, not only to do alphabetical justice but also because his essay provides the least pleasant and rewarding *materia prima*. It isn't pleasant because Mr. Brameld is genuinely angry. It isn't rewarding because I cannot figure out why he's angry. Can it be because of what we said about reconstructionism? We said, among other things, that Mr. Brameld's own version of the reconstructionist social analysis is wrong-headed in that it asks educators to choose among alternatives that are not at all genuine as alternatives. Social analysis by Mr. Brameld frequently consists of pointing out the progressive, forward-looking trends and forces within a culture, in contrast to the conservationist (*sic*) reactionary, and undemocratic elements of the culture. (The culture may be that of the United States or of Puerto Rico or other.) The educator is then told that he must choose which of these sets of forces he will support by the kind and character of the educa-

tion he offers the children who are growing into the culture. We believe that Mr. Brameld's is not the correct way to do social analysis. The sentence which Mr. Brameld quoted and labeled false should be read as follows: "Education is so closely involved with other institutions in society that educators cannot stand aside, as it were, and choose what kind of world they would prefer children to grow up in. It is both wrongheaded and typical of Reconstructionism to require that educators do this. But education, a process by which young men and women come to have a full cognitive grasp of the institutions in which they live, does have a whole range of further, sometimes predictable, consequences on those institutions themselves." Now this expanded statement may still be false, but it has not been shown to be so when Mr. Brameld "merely indicates" that it is false. An analysis of the interdependent involvement of the school with other social institutions is not made adequate merely by virtue of its author's affirming that such an involvement exists.

If our disagreement on what constitutes the correct way to do social analysis is the cause of Mr. Brameld's anger, then little, I fear, can be said here that might relieve it. More hopefully, it may be that he is angry because we did not provide the details of a curriculum that would accomplish the training in the disciplines we recommend. If this is the case, I can, in imagination, share his anger. I find myself made angry, for example, by the curriculum proposals of certain fashionable psychologists, for I do not know, literally, what they are talking about. But on re-reading, I don't think we are guilty on this score. One can describe what it means to know, say, mathematics without saying in detail what one would do either to teach it or to learn it. Curriculum construction, hopefully, will increasingly become a technical activity rather than a field for fruitlessly prolonged "methodological" speculation. We have said enough to give some direction to curriculum planning, but we have not issued prescriptions backed only by our personal preferences.

But the most likely source of Mr. Brameld's ire is something about our claim that intellectual discipline constitutes the basic commitment of contemporary America. When he touches on that point, he uses the most pejorative terms in the lexicon—"murky classical realism," "naturalistic fallacy," "moral aura," and the like. (He even charges *non sequitur* against a harmless little topical sentence which never claimed that anything follows from anything else.) Still and all, I can't make out just *what* it is that bothers him. I rather think that Mr. Brameld worships the Golden Calf of a "democratic world community," mistaking it for God. (What truth other than a religious truth "generates . . . a very rich and exciting new purpose toward which energies . . . should now be directed"?) We've offended his religion, for we don't advocate an education built around the worship of his (or any other) god. The attitude of critical, disciplined intelligence and the attitude of emotional

involvement are antithetical. The question whether the latter has any place in education, and if so, what place, is raised again by Miss Gough's review, and I will return to it there. But nothing I have said or will say is likely to salve Mr. Brameld's wounds. I'm sorry.

2. Mr. Calhoun's review raises several quite relevant points; a full treatment of any one of them, as Mr. Calhoun well knows, would require a whole issue of this *Review*, at the very least. I should like to comment on two of his points very briefly.

a. Just how big a difference between then and now justifies a "sense of cleavage"? The better the historian the more he sees continuity in change, the more he resists the notion that there is some unprecedented characteristic of the present scene. But our thesis requires acceptance of just such a revolutionary condition in present day America. I'm not sure, however, that Mr. Calhoun understood precisely the point at which we called the new America truly novel. If he sees it as we intended, he may relent a little.

We were quite aware that "explicit debate marked almost every step in the development of the corporate ethos." It may have appeared that we assumed the contrary, simply because in compressing two centuries of historical process into parts of one or two chapters we were forced to use language that made the developments we described sound almost automatic. We agree on that point: we shouldn't want to be taken as saying that those poor eighteenth and nineteenth century idiots simply marched blindly into the corporate ethos while we enlightened twentieth centurions lead our companies by clear, well-ordered maps. It wasn't that way; it isn't that way.

Nor, as Mr. Calhoun assures us, have the dimension of choice changed all that much. The alternatives to the corporate ethos could only be localism or communalism, Christian or Utopian (or both, Mormonism). Intellectual training has its natural opposites—inward salvation, local identification, or, more recently, emotional self-fulfillment. The documentary record of men's debates on these matters can thus show only a few major topics; compromises, syntheses, or even clear-cut victories are always short lived in the long run. It isn't surprising but it is relevant to see that these debates have followed almost regular, cyclical patterns in the history of American thought, even if it is a bit disconcerting to see one's own arguments placed at a nodal point in such a cycle with the inevitable revanche soon to follow.

But our claim for novelty, for unprecedented-ness, is something different. We argue that there has been a fundamental change in the relation of language of public debate to the non-linguistic reality of public life. Linguistically one can pose an argument for communalism against the impersonal corporate structure. (Cf. Erich Fromm: *The Sane Society*, last chapter.) But no longer are these genuinely experienced alternatives, between which one can

choose as he has found life worthwhile or worthless. "Community" has become an abstract, perhaps utopian, word in the context of an argument on the basic form of social organization to be preferred and promoted. And even "corporate system" is not a term that one can learn the meaning of just by growing up in a mobile, middle-class family, much less in a slum neighborhood. Our thesis, in sum, is not invalidated by showing that debate on the issues we discuss has been continuous. What is unique is the present relation (or absence of relation) between the language of debate and the rest of social reality.

b. From the argument above it follows that there is a fundamentally new role for education in the contemporary society. If young men and women are to have any grasp of the world they live in they must get it by intellectual discipline; the intuitive feelings which, for most of mankind in most of his history, have served quite adequately as the basic way of "knowing" the world simply will not do so any longer. I shouldn't think, actually, that Mr. Calhoun would reject this conclusion even if he will not accept the basic argument from which it follows. What he does object to is our leap from the undeniable importance of cognitive disciplines in deliberate education to the apparently startling claim that these should be the exclusive concern of schooling.

If our somewhat convoluted arguments in the last half of the book did not satisfy Mr. Calhoun I'm sure no simple remarks here will do so. But an attempt must be made. It is very perspicacious of Mr. Calhoun to recognize the moral and political thrust inherent in a putatively intellectual education. (This point apparently escaped both Mr. Brameld and Miss Gough.) What he still finds missing is the "tending" of purpose and integrity. Our products, he fears, will be "cold fish," not warm, integrated, active persons.

I find myself very much pulled toward Mr. Calhoun's view until I start to ask just what one might do to "tend" such growth. And then it strikes me full in the face that in the "New America," (or as Mr. Brameld points out, in the New Europe as well; soon the New Africa also) personality is not a datum but an achievement, primarily an intellectual achievement. How does one attain integrity? By attaining a solid enough intellectual grasp of the social and physical world on which to build a unified selfhood. Not a sufficient condition, admittedly, this necessary condition sets the basic task, even in promoting integrity and purpose, for a school in the contemporary society.

But if Mr. Calhoun is *still* not satisfied, if he wants us to do more than this, I'm afraid I haven't any more answers. Can you tell us, Mr. Calhoun, what more we may do to educate for integrity without introducing any phoniness that would destroy the soundness and cleanliness of our intellectual disciplines? If you can, the case is yours.

3. Miss Gough's review arouses strong feelings, as someone once said,

mostly mixed. Her review inspires respect because it shows respect: anyone who wishes to know what our book is about could find no more adequate statement of it than that given by Miss Gough. She distorts our meaning when she says "the key-note . . . seems to be acceptance of the *status quo*," but the distortion is qualified by the verb "seems" and by the proviso which follows. Her distortion is deliberate, not a failure in understanding. It is indeed a pleasure to find such a literate and insightful reader.

But what a strange reaction follows her summary! We had anticipated that we should have trouble communicating with the ordinary reader; we didn't expect that anyone who grasped our meaning so well as Miss Gough would reject our thesis on such flimsy grounds. Let us consider her two main lines of attack: that we are ambivalent and that we undervalue the effectiveness of political action in social reform.

The first major objection, according to Miss Gough, is our dual ambivalence; we are ambivalent toward certain conflicting tendencies within the mainstream of American corporate and family life; we are ambivalent toward the disparity between the mainstream and the "other America." Our resolutions of these ambivalences she labels a "weak compromise." Now I fear Miss Gough badly confuses two quite different issues. Consider any well-informed, liberally educated person of sophisticated and humane values (a person, say, like Miss Gough herself): what overall attitude *should* such a person hold toward American life *as a whole*? I submit that ambivalence is, indeed, the only reasonable, appropriate attitude. There are admirable, wonderful qualities (and opportunities) in that life. There are disgusting and frightening qualities (and dangers) to be found there. Which is *real*? Both are, equally so. This was the sense of "is-ness" we wanted to get across. The expression—Promise and Portent—was to be taken not as compromise but as a simple recognition of the way things are. The theme runs through our treatment of the corporation, the family, religion, science, and the school. If you, Miss Gough, are not ambivalent toward the American life *as a whole*, you ought to be. (This dictum applies to both the ambivalences charged against us.)

But to be ambivalent overall is not to be ambivalent in detail. We are not ambivalent toward the failure to provide full integration of Negroes and women into the public, corporate world. We do not advocate compromises with the escapist, separatist tendencies in both public and family life. Miss Gough finds it strange that we hold it immoral to deny top leadership roles to women. Does she think it the right thing to do? There well may be differences between Miss Gough's values and ours. But ours are not, just for that, weak or compromised. We find the objective analog for rational human values in the basic public and family institutions of this society, which is not to say that we find those institutions models of perfection.

It's a shame, really, that Miss Gough is so confused on this point, for she has spotted some points that could well use further analysis. Particularly: we may not have noted with as much vehemence as we should have the fact that our public, corporate system punishes with such degradation and despair those who are excluded from it. This demonic tendency operates against those, like the American Indians and Amish, who do not wish to integrate, as well as against the Negroes and hillbillies who do. We may have been too optimistic in our implicit belief that the rigid and repressive bureaucracy characteristic of many public institutions, including, unfortunately, *most* educational institutions, would evolve rather rapidly into the autonomous, decentralized team organization characteristic of the more dynamic sections of our economics and social life. But if we were wrong in those details, let us argue *those* points. In confusing the general with the specific, Miss Gough has deprived us of her valuable insights into the details of the current social scene.

b. Concerning the undervaluation of political action, we seem simply to be in disagreement. The disagreement may, however, be only apparent. A full, careful analysis of just what was done and with what results, in Berkeley and in Albany *might* persuade Miss Gough to come off it just a bit. (See Reese Cleghorn: "Epilogue in Albany," *New Republic*, 20 June 1963.) But this disagreement, whether superficial or deep, is not in itself relevant to the book under review, that is, unless Miss Gough wants to say that deliberate education ought to include both practical training in how to engage in direct political action and also explicit indoctrination in what causes to fight for. If that is what Miss Gough means, then in my opinion, she is talking utter rot. Youth will find its own causes and will train itself in techniques of action appropriate to its time and place. (As an accomplished young organizer for CORE once told me: it's good to have some of our professors marching with us, but we don't need them to preach in class.) When Miss Gough says "we believe" or "we think," she may be guilty of the Fallacy of the Undistributed First Person Plural, a logical error we used to identify by asking the question: Wheredya get that Lindbergh stuff?

4. Taking the comments from these three very able and perceptive critics together with other responses from a number of quite different persons and groups, I am ever more convinced (a) that we were on the right track and (b) that it is going to be very difficult to gain acceptance for our views. Education is inherently a religious enterprise, for one feels compelled to pass on to his children those values he holds supreme. And very few people genuinely believe that a hard-won and wholly disillusioned intellectual grasp of the world is a *supreme* value, a dominating goal for education. But if our social analysis is correct, and in its broad outlines it *must* be a fairly accurate picture of things, it follows that, whether or not most men and women (including

reviewers of this book) want to see intellectual mastery elevated to a supreme goal of education, it must be so elevated. I think that even a casual reading of the contemporary scene will convince that such is the case. The only questions are whether "scientific rationality" is to be as widely shared as we can possibly share it and taught as effectively and relevantly as we can teach it. Let's stop talking and get to work.

Temple University

SOLON T. KIMBALL

Among the potentially rich rewards which all authors should anticipate and cherish are the thoughtful evaluations which their colleagues offer. Indubitably, our bounty has been a rich one, albeit sometimes flattering, sometimes bitter, sometimes confusing. The three reviews in this issue of the *Harvard Educational Review* are illustrative of that range of reaction which those who read *Education and the New America* have given to our efforts. May we say that the diversity of interpretation was not entirely unexpected although we have been amazed, at times, by the contradictory purposes ascribed to us. I cannot believe that these differing views are entirely a function of the idiosyncratic vagaries of the reviewers, there must also be some connection with the substance of our argument.

Two postures are available in response to the critics. One is to attempt to defend our position and to answer those objections where we believe we have been misinterpreted or challenged. The other is to join with the reviewers to search further for those facts and insights which clarify where the argument is obscure, to extend understanding where we have left omissions, to promote meaning in the untangling of relationships and to reveal new syntheses. I propose to take both postures. Unless there is understanding of our purposes and of the logic and course of our argument, the discussion cannot be joined. Unless we are willing to re-examine our conclusions in the light of new facts, there can be no advance.

Perhaps some explanation of the spirit which first gave impetus to the conception of this work and which pervaded much of our effort, as we gradually shaped its expression in words, will illuminate some of the intellectual and moral dimensions. We believe that no informed or sensitive person can avoid being deeply distressed by the neurotic tendencies and social distortions which manifest themselves in this troubled world. Further, neither innocence, nor complacency, nor fuzzy-headedness, can be tolerated in a world which man now claims he made and for which he is responsible. That is the price which accompanies man's claim to prescience, or his arrogance. Whatever the con-

sequences, we Americans have severed ourselves forever from those moorings which once gave us comfort through belief in the certainties. If we are to be succored, then the effort must be ours. The first step in this process is to discover where we are, what resources we possess, and what our goals should be. Only then will we be ready to prescribe the activity we follow, to set ourselves on the course we chart. Prescription must follow analysis. For that reason, we said, our first task must be to attempt to understand what is this civilization we call America. There is no need to restate our views, they are expressed in greater or lesser detail in each of the several chapters.

When we came to view our effort as a whole, we were struck by several aspects that were not so clear to us as we labored on the separate parts. Although our orientation was that of sound analysis, we believe *Education and the New America* to be a deeply moral book. We believe that it breaks with the widely disseminated, carping pessimism which has enshrouded so much of the intellectual climate of recent decades. We believe that it offers a threatening challenge to the reactionary traditionalists, of the right and of the left, as well as to the cultists whose predilection for Freud, for Marx, or for existentialism, gave them a new dogmatic security for the one recently shed. Nor have we been disappointed in our expectation of attack and rejection by those whom we have threatened. These attacks we welcome because we believe that the intellectual issues on this battle front are real, and the outcome is fateful. We are disappointed, however, that an adversary like Brameld, however annoying his flank attacks may be, avoids joining the battle head-on. Instead, he wishes to negotiate with us why we have failed to treat of that "most crucial" fact of the place of America in a "new world."

We cannot do other than take this and similar charges of omission seriously. Others who wanted to negotiate with us have asked why we omitted or touched only lightly upon such problems as the perennial poor, juvenile delinquency, and the race question. To reply by stating that treatment of these social problems would extend the book beyond its intended scope would be true enough, but more important their treatment would have diverted us from consideration of a problem which we believe is far more fundamental than these others. Moreover, we are both bothered and puzzled by the insistence of those, who like Brameld, want to negotiate with us. We can offer two possible explanations. Either they occupy an already declared position which permits of no modification, or they have not understood what we have been talking about, or both. We should remember that opaqueness may be as much a function of those who view, as of that which is viewed.

Earlier, we suggested that one type of review allowed us to join with our critic in new exploration. The review by Mr. Calhoun offers this possibility. He carries us into an earlier epoch of American history than that which we

explored, and gently reminds us of the similarity and relevance of the problems of that time with the present. In fact, his excursion into history further develops a dimension the importance of which we give full recognition. We feel, however, that he would not disagree with our insistence on linking the expression of commitment and the form of social grouping.

But Calhoun's caution that we may be shortsighted in slighting "the personal, the purposive, and the emotional" is disturbing, not because we disagree with the intent of the warning, but because it can be taken as evidence that our awareness of the importance of this aspect of humanity did not appear with greater sharpness. We grant that our insistence upon the development of cognitive skills through deliberate education, as a necessary prelude to commitment, may have overshadowed another thread of our thesis, that of the widening freedom accorded the individual in his private life. (How he uses this is another matter.) We anticipate as one consequence the enrichment of human life, itself. What responsibility education should have for one's private world we are not sure, but it is our inclination to argue against any institutional intrusion upon it. In any event, there should be no disagreement between us.

The most stimulating portion of the Calhoun review is found, however, in those paragraphs which describe the tensions between localism and a wider perspective and the use of corporate organization to expand the breadth of national cohesiveness. The relevance to the form which commitment assumed under such conditions must be granted. But what we are arguing for is some real choice in commitment, and between localism and the corporate ethos no real choice is possible today. To re-establish the conditions of choice is the prime duty of the educational enterprise in our type of society.

Finally, we can do no less than bestow our admiration upon the fervent righteousness with which Miss Gough assails the ills and evils found in American society and the entire world. Personally, I have no hesitation in joining with her in condemning injustice in every form and place in which it occurs, and I urge others to do the same. In fact, I do not overly protest her reviewmanship in special pleading and exhortation. These are not the issues, however, and, as stated earlier, we will not be diverted by negotiating over them.

We recognize, however, the disagreement between us, and accept that it is both subtle and profound. Purity of passion for the "right," irrespective of who defines it, is no substitute for the hard task of learning the realities and then having the courage to face them. (There is no oppression more vicious or more dedicated than that of the righteous.) We have urged that only through deliberate education can the American people have the opportunity to learn about and to assess the benefits and costs of our type of society. The terrified cry of the mother whose young are threatened cannot save us this

time. If man is worthy of being saved, then he had better use that unique quality which sets him apart from the brutes, his intellect, to comprehend and control the world in which he lives. The American system not only offers that possibility but the further and revolutionary one of making changes in it.

Let us reiterate, when we asked "assent" to America, we meant just that. The assent we seek is not that of submission to the status quo (as seems to be implied by both Miss Gough and Mr. Brameld) but of a willingness to join whole-heartedly in the great drama of change to which this country is committed, and which leads, if we are successful, to a freedom for individual self-development, and the opportunity to contribute to the welfare of the whole.

We suggest that if Miss Gough had utilized the cultural perspective which her discipline, anthropology, must have given her, she would not have distorted the context in which she interprets the current drive for equality among Negroes. It is a protest against the cultural remnants of a now anachronistic agrarian system. Negro misery, or that of the whites of the Appalachians, is not a product of contemporary metropolitan culture. Quite to the contrary. For a hundred years or more the dispossessed of Europe, and now those of the old South and of Puerto Rico, have found refuge and succor for themselves and opportunities for their children in America's urban society. If we do less for them than we should, or do it badly, that is to our discredit. But these people are the products of older agrarian patterns which no longer have meaning and to place the blame for their plight upon the emergent American pattern is to ignore the processes of culture, history and change.

Miss Gough's concluding sentences reveal a compassion for man worthy of a Christian saint. But if we have the choice of aligning ourselves with the sons of Martha, or with those of Mary, as choose we must, then we must join the former, for these are the ones who have earned the right of commitment and of belonging to a world which they helped to create. The men of science are a modern counterpart of the sons of Martha. There is the "scientific rationality" which Miss Gough so peremptorily dismisses. They are the ones whose probing of the physical and social worlds can restore a sense of wonder and a belonging far beyond anything that the ephemeral reformer can offer us. It is their way of thinking about the world which American education must incorporate in its methods and curriculum.

Teachers College, Columbia University

The Editorial Board welcomes comments on articles, reviews, and letters that have appeared in the REVIEW. Communications should be addressed to: HARVARD EDUCATIONAL REVIEW, 13 Appian Way, Cambridge, Mass. 02138. Letters from readers will be published, or printed in part, at the Editors' discretion.

To the Editors

DISCUSSION ON PHILOSOPHY OF EDUCATION*

Gentlemen:

While we praise the present policy of a discussion section in the Review, we deeply regret the discussion conducted in the last issue. To ask D. J. O'Connor to review Robert Ulich's book was very poor judgment; to ask Messrs. Frankel and Price to vindicate Mr. Ulich was exceedingly bad taste. Robert Ulich's works can stand on their merits. The book was not reviewed; it was used. Such treatment maligns the author and demeans the HARVARD EDUCATIONAL REVIEW.

JOHN J. O'NEILL
Fairleigh Dickinson University
LOUIS RABINEAU
Pratt Institute
MONA L. RABINEAU
New York University
HENRY J. PERKINSON
New York University
JONATHAN MESSERLI
Harvard University

* The letter refers to a discussion, "Philosophy of Education," H.E.R., Spring, 1963. Please see Professor Ulich's reply to the discussion in "To the Editors," H.E.R., Summer, 1963.

THE RESPONSIBILITY OF THE SOCIOLOGIST TO EDUCATION

To the Editors:

I have been invited by the Review to comment on Mr. Donald A. Hansen's article, "The Responsibility of the Sociologist to Education," [HER, Summer, 1963].

The crux of Mr. Hansen's central argument, on which his entire thesis depends, lies in his interpretation of the existentialist view of man's responsibility. To assume in the existentialist sense that man is responsible for his acts is to assume, in Mr. Hansen's words, "that man has a *duty to act* on his values and knowledge." While this seems to be a fair statement of the position of a number of leading existentialists, the question is whether or not this view can be properly interpreted to support the action demanded by Mr. Hansen. Is it reasonable to argue that it constitutes the basis of an "imperative that *requires* the sociologist to take active interest in education," as Mr. Hansen argues?

If it is to be successfully argued that the sociologist has a duty to act in the way prescribed by Mr. Hansen, it must be assumed that the sociologist has

knowledge of sufficient importance to education that, given certain values, he will feel compelled to act in this way. Accordingly, Mr. Hansen insists that education, which he deems to be of great importance in modern society, has a natural dependence on sociology and that sociologists are in a position to make important contributions to education. Few would dispute these claims, but Mr. Hansen necessarily goes much further. In fact, he seems to infer a far greater dependence of education on sociology than is supported by the facts he presents. Except in a general way, he fails to indicate what those seemingly vital sociological contributions are which he has in mind as he proceeds with increasing insistence to underscore the urgency which he attaches to the presumed need for sociologists to act on behalf of education. Instead, he states how they should act, and it is in this connection that he will doubtless experience the greatest difficulty in winning the support of his fellow sociologists, for he argues that they should go beyond the normally accepted limits of sociological inquiry, addressing themselves not only to questions of "what is and what might be" but also to questions of "what should be." "*The sociologist*," he says, "*must... urge educators to take certain action.*" Again, he fails to offer a single example of any action he feels a sociologist should urge. One may ask why he has gone so far. Why, if he is trying to induce fellow sociologists to enter the field of education, does he take a position which is unacceptable to many of them and will tend only to further alienate them, especially when it can be argued that, even if acceptable, such action on the part of sociologists is unnecessary and of less importance to education than other activities on which they might better expend their time and energy? On first consideration, the an-

swer seems simply to be that Mr. Hansen is deeply committed to an interpretation of interactional theory demanding activity of the kind on which he insists. It would seem to be a much simpler task to seek to establish an imperative for action of a kind more acceptable to sociologists in general than to try to establish an imperative for what he calls "active interest in education" and which is defined to include the making of value judgments and the urging of particular courses of action. Why not simply be satisfied with making a plea for research? Is there any reason other than Mr. Hansen's commitment to interactional theory for going further and demanding more? There seems to be. The existentialist conception of action would seem to demand more. Traditionally, the existentialists have been quite antagonistic toward empiricism, questioning its assumptions and denying its validity. Consequently, any effort to support a plea for empirical research on the basis of existentialist theory would be open to serious question. Mr. Hansen goes further because he has to go further. He is quite right in his recognition of similarities in the interactional and existential orientations. Where action is demanded, both seem to demand it at the level of active participation. Hence, if one accepts the values inherent in the interactional point of view, the value requirement necessary to activate the existentialist duty to act may be said to have been fulfilled.

Has Mr. Hansen succeeded in establishing an "imperative that *requires* the sociologist to take active interest in education," or has he failed in the attempt? The answer is that he has succeeded to the extent that he has persuaded sociologists to accept the following: (1) the existentialist conception of man's "*duty to act on his values and knowledge,*"

(2) interactionalist values, and (3) the high priority he assigns to the need and importance of sociological knowledge in education. For those who agree with Mr. Hansen on all three points these constitute an imperative which requires them to take active interest in education, but it is a very personal thing. No imperative can be said to exist independent of some individual, and no imperative has been established in the normal abstract sense in which all sociologists might be said to be bound by it. Such an imperative would be inconsistent with the existentialist conception of individual freedom on which is predicated the assumption of man's responsibility, which is the keystone of Mr. Hansen's argument. Man is responsible, in the existentialist view, only because he is free. He is free to accept or reject values, and he has a duty to act on his values only because they are truly *his* values, that is, they are values which he has freely adopted. On this basis, the sociologist may be presumed free to accept or reject any of Mr. Hansen's several value assumptions, and he remains free of any imperative to act until he himself brings into being such an imperative by freely adopting those several value assumptions of which it is constituted, or on which it is based. Owing to the kind of action which is demanded, action contrary to the traditional values of a majority of sociologists, it is unlikely that many sociologists will find themselves in this position.

PAUL E. KELLY
University of Virginia

To the Editors:

The relationship of education and sociology has been of concern to sociologists for many years. Small, Ross, Durkheim, Ward, Znaniecki, Chapin, Wilson, Ottoway, Merton, Brim, Caplow,

Cook, Goldsen, Williams, Coleman, and Riesman are just a few of the sociologists who have written about education; a *Journal of Educational Sociology* devoted to the relationship of education and sociology has been published since 1927; and no major sociological text has ever omitted a substantial reference to education as an institution in modern society. One can hardly read a current sociological journal without finding articles therein devoted to some aspect of education or to an aspect of sociology using educational participants as subjects. In spite of these facts Donald A. Hansen (HER, Summer, 1963) protests that sociologists have neglected education.

Actually Mr. Hansen defines educator so broadly ("all human artists, such as counselors, teachers, social workers, and other professionals who work toward the development or adjustment of youth and adults."—p. 312n) that it is difficult to see how any published sociological effort could fail to be important to the educator in one way or another. Mr. Hansen's first point, namely, that sociologists contribute "little" to education cannot be accepted on its face. What does he mean by little? What would he accept as a contribution? Without answers to these questions, the extent of sociological contribution depends on one's point of view.

Mr. Hansen's second point, it seems, is that sociologists have not made explicit how their material will assist education. He states that sociologists "leave their statements half-buried in forests of methodology and theory and hidden by jungle-thick leaves of specialized journals" (p. 315). Mr. Hansen places too much of the burden for change on the sociologist and not enough on the educator in this part of his essay. Does he mean to suggest that there should be a sociological *Readers' Digest* which will

translate sociological concepts and research into language understood by the educator? This thought is not without merit but certainly it is as much the educator's responsibility as the sociologist's to bring it to fruition. Or does Mr. Hansen suggest that sociologists guide their research and writing so as to insure understanding by the educator? This suggestion is not so well taken since it shifts emphasis from the importance of refined, rigorous, and discriminating sociological concepts and methods to a more comprehensible language for non-sociologists. This shift in emphasis may in turn affect the quality of the research and analysis themselves.

The third point of Mr. Hansen's article and the one to which he devotes most of his effort deals with the sociologist's duty to recommend "shoulds" to the educator. Mr. Hansen refers to this as a normative responsibility and seeks an imperative for it in the existential philosophical and psychological literature. The relationship of the normative to the empirical is a major question fraught with methodological, theoretical, and political considerations which have concerned social, biological, and physical scientists alike. It is an important question, and the vehemence of Mr. Hansen's statements probably results from his feeling that "hard" sociologists simply will not come to grips with it.

In the final analysis we would agree with Mr. Hansen that sociologists should not withhold normative recommendations, if they do this in the hopes that thus they are more scientific. It would seem, however, that an argument seeking an imperative for sociologists making normative recommendations would better refer to the nature of the sociologist's discipline, his training, his knowledge, his competence, and/or his experience than to his "duty to create a

self and society consistent with that which is best in him" (p. 322). One's duty is not nearly as important as one's ability in the making of normative recommendations. A sociologist should make normative recommendations to educators because the sociologist's background and research have equipped him to do so. It is no more a question of duty than it is of right. Sociologists may choose to make normative recommendations or not. They are not bound to do so. They may not know enough to do so. They may be too limited in their perspective of a given area to do so.

Mr. Hansen has not been successful, it seems, in his efforts to establish sociologists' indifference to education, to place the burden of being understood by educators on the shoulders of the sociologists, and to develop an imperative upon which sociologists can justify making normative recommendations. A sociologist may choose to apply the methods and concepts of sociology to the study of the educational institution and its participants. If he does so, he should be willing to indicate any normative recommendations, which are warranted by this research, and which promise to help educators in their decision making. The imperative for this is to be found in his knowledge not in his duty. Should he feel that his knowledge is too limited or incomplete, he may decide against making normative recommendations. Educators for their part should be aware of the potential sociological contribution, work with sociologists in making that contribution possible, and prepare themselves to make proper judgments as to the value of that contribution to them.

MATHEW R. SCAN
Brandeis University

EDUCATION OF EMOTIONALLY DISTURBED CHILDREN—REPLY TO A REVIEW*

We are pleased to have a lengthy, serious review of our book, but disappointed that Dr. Bettelheim's comments are so petulant and personal. It is unlikely that the type of criticism offered would lead to improvement of our study were we to repeat it. One of the less admirable features of his review is that he neglected to tell the reader what the book was about. He was apparently too intent upon developing his own biases.

We are frank and forthright in trying to establish new premises for planning and educating and treating emotionally disturbed children; Dr. Bettelheim apparently does not accept this effort but wants to keep research and practice in a traditional (essentially psychoanalytic) vein. *Structure* is a real issue—what we mean by this term is not what Bettelheim means and it is not sufficient to say that all classrooms and treatment climates have a structure, or that a special environment must be created for the disturbed child. The reader can judge for himself the adequacy and relevancy of our definition and use of the term "structure" in our book (p. 8) compared to Bettelheim's concept in his *Truants From Life* (pp. 25-28).

With reference to our inconsistencies, practically any volume will contain examples. In Bettelheim's *Truants From Life*, we note:

The ten-year period that has passed since then (1944, when Dr. Bettelheim joined the Orthogenic School) may seem a long time . . . but it is not

* The authors of this letter address themselves to Bruno Bettelheim's review of their book, *Educating Emotionally Disturbed Children* (New York: McGraw-Hill, 1962). Bettelheim's review appeared as an article, "A Noncontribution to Educational Research," in H.E.R., Summer, 1963.

a long time in which to rehabilitate these very disturbed youngsters or assess the *permanent* (italics ours) outcome of our work (p. 5).

We would be only too happy to learn how he assesses the permanent outcome of his work. Now compare,

. . . I wished to present case histories of only those children (actually only four cases) who were exposed for this minimum of three years to what we considered our *full* (italics ours) effort (p. 6).

Please note that three years is vastly different from ten years, but both are advanced as periods of time needed to rehabilitate his disturbed patients. Moreover, in Table 1, page 15, Bettelheim states that 48% (15 of 31 cases) were "rehabilitated", but he draws only four cases as representative of his full effort. We do not know from any of these descriptions what rehabilitation means in terms of actual behavior. Who made the judgments? What relationship existed between the judgments and real life situations?

These quotations are not cited to rationalize our inadequacies (as per Bettelheim's review) but to make a plea for the reviewer to face up to and the reader to understand the basic issues between Bettelheim's position and our position (and, in further contrast, that of Redl, Neill and most residential treatment centers). Statistics and quotations aside, the fundamental issue is the striking difference between Bettelheim's "therapeutic climate" and ours. An example of some of the important differences between his and our approach can be seen clearly in the following statement of his philosophy and his illustration of it as translated into classroom action. He makes reference to the structure within his school and says that all

approaches have structure, but our concern is with his vagueness and indifference to the way he uses the term:

It must be possible at any moment for every child to express freedom and self-assertion in action and sound; but how this happens though it constitutes the differences between good and bad institutions for children *defies description* (italics ours) (p. 25).

... No child is expected to do any housework or daily chores (p. 25).

Bettelheim goes on to describe what are to us very inconsistent ways of handling conduct problems and seems to make decisions on-the-spot rather than following an overall plan in handling the disturbed child. In contrast, we say,

... structure refers to the clarification of the relationship between behavior and its consequences. Specifically, ... setting up a definite and dependable classroom routine ... giving at first specific and limited tasks which can later be extended and embellished as the child increases in emotional self-control and educational application; having the teacher remain consistent in giving and following through on requirements (p. 9).

In terms of psychological theory, Bettelheim's approach is oriented toward drive-initiated behavior, toward unconscious motivations for behavior that require acting-out and "release" therapy. We prefer to regard behavior as being more adequately described by information-processing, by programed efforts toward specific goals, and by the analysis of choices and actions that lead to predictably desirable consequences. Behavior has consequences, recognizable through feedback provided by the social environment; which is to emphasize the

importance of clarity, firmness, consistency in helping the child to better personal and social integration. We are more interested in modifying and manipulating the environment in ways that reduce the status of uncertainty under which the child lives; we are *putting in* information so that the child gains an increased likelihood that his information receiving and processing will respond better to reality, rather than exhuming, draining, uncovering, hoping to find the "key" to disturbed behavior. The reduction of uncertainty is a matter involving total management which includes the home. We believe that the parent groups play an equally important role in the stabilization of the environment. When the child is in residence it involves the child care worker or cottage parents. The child must be able to predict what will occur in a variety of situations with a high probability that his prediction will be confirmed. Our work is as closely akin as we can make it to such pervasive areas of science as information theory, Cybernetics, and some aspects of learning theory. This is a vastly different approach from what Bettelheim eschews; to miss this point, as Bettelheim does, is to miss the heart of the matter.

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FEDERAL LOANS TO PAROCHIAL SCHOOLS

To the Editors:

This is in reply to Mr. Dunbar Holmes' excellent "Comment" on my article, "Loans To Nonprofit Private Schools," (H.E.R., Summer, 1963).

The value of such comment is shown by Mr. Holmes' correction of my inexplicable error in citing the *Cochran case*

as one decided under the First (rather than the Fourteenth) Amendment. In that case the United States Supreme Court upheld the use of State funds to purchase textbooks for private as well as public school pupils, and it laid heavy emphasis upon the public purpose thereby served. That was the essential point of my argument.

Mr. Holmes attempted to discount the unanimous ruling in *Cochran* by citing to the contrary two state court decisions which were based upon state law and not upon the Constitution of the United States. Most states have explicit provisions in their laws which prohibit public aid for private schools. Mr. Holmes surely recognizes that the state court cases he cited have no relevance to the issue of the constitutionality of an Act of Congress.

There is nothing "new and novel" in my concept that implementation of a broad, public purpose in education outweighs purely incidental benefits to religion in the determination of whether a particular form of aid is permissible. The Court itself, in the *Everson* case, spoke of the "public purpose" in upholding bus transportation for parochial school pupils, and refused to find that the "legislature has erroneously appraised the public need."

I do agree with Mr. Holmes that there is no constitutional distinction to be made between a loan and a direct grant. The 1961 memorandum of the Department of Health, Education, and Welfare attempted a distinction between loans and grants which, I believe, was based upon a purely political consideration. This has proved to be a wholly unnecessary embarrassment to bi-partisan efforts to obtain effective Federal aid for the construction of college academic facilities.

The crux of Mr. Holmes' comment was his defense of what he termed the

"absolutist" view of the establishment clause of the First Amendment. Every other consideration of law and of public need is brushed aside to give a sweeping—even harsh—application to the clause. He argues that the consequent nullification of many practices long accepted by our free society "is an argument against the soundness of these practices, not against the soundness of the view." I respectfully disagree that the view is sound.

To sustain their view legally, the "absolutists" must: (1) Give to the establishment clause a scope and rigidity not even accorded freedom of speech; (2) Ignore (in this case) the constitutional status of Congress as a co-ordinate branch of government with a right and duty of its own to assess the validity of its acts; and (3) Dismiss the constitutional principle that a law is presumed to be valid—and the profound legal effect of the presumption—with a passing acknowledgment that "courts do exercise judicial restraint."

Of course I am appalled by a result which would remove every aspect of religious observance from our public life; and I think this result is just plain foolish. But I believe that the "absolutist" position is bad law, without regard to the result it would have.

As Mr. Holmes pointed out, my view of separation of Church and State makes it more difficult to draw the precise line between "what violates the principle and what does not." But constitutional law is replete with difficult distinctions. The possibility that we might unduly favor some private sectarian interest is not among the most frightening dangers involved in constitutional interpretation.

My "moderate" view allows for a proper weight to be given to legislative assessments of public needs. It permits a desirable degree of flexibility in the means chosen to achieve vital public

objectives. The vitality of the Constitution stems in large measure from just such an approach, which has led neither to a weakening of principle nor to the abridgment of the rights of citizens.

CHARLES W. RADCLIFFE
Washington, D.C.

To the Editors:

Mr. Radcliffe's article "Loans to Non-profit Private Schools" (H.E.R., Summer, 1963), is a vigorous critique of aspects of my article, "Religious Schools and 'Secular Subjects'" (H.E.R., Summer 1962). Such discussion of public policy is healthy, and I wish to continue the dialogue.

One thing should be clearly understood. My comments have never been directed at the eight-titled, \$575,000,000 National Defense Education Act as a whole, but only at one section of one title which has amounted to less than one half of one percent of the total N.D.E.A. expenditures. Therefore, Mr. Radcliffe's citation of the many personages who think the N.D.E.A. program as a whole is a good thing (I do, too) does not advance us very far in consideration of the Section 305 loans. As Mr. Radcliffe concedes, the "Section 305 loan program is one of the least vital" of the federal educational programs. In fact, this particular program has been so unsuccessful that almost ninety per cent of the funds appropriated for it have not been loaned for lack of requests and eligible candidates. Indeed Section 305 would hardly be worth discussing if it were not for the problem of the dangerous precedents it sets and the "secular" subject concept on which it rests. In the present Congress, parochial school supporters are arguing that Section 305 should be expanded to provide a longer loan period, to cover more subjects and finally to change the loans into grants.

Mr. Radcliffe's description of the legislative history of Section 305 is written in a political vacuum. Despite the generalized statements of national need, neither the President's message requesting N.D.E.A. nor any of the witnesses before any of the committees ever requested loans for parochial schools in sciences, mathematics and languages. In 1602 pages of Senate hearings that covered everything from Congressional citations for honor students to language training for merchant seamen, no one ever proposed these parochial school loans. When the generalizations were translated into concrete bills neither the administration nor any of the other bills contained a loan provision for parochial schools. When the House Committee on Education and Labor completed its hearings and wrote a final bill and when the House passed that bill, there was no provision for parochial school loans. The first time the loan provision did occur was when the Senate Committee on Labor and Public Welfare in executive session (closed to the public) in marking up the bill inserted Title III. Mr. Radcliffe explains the late arrival of Section 305 on the grounds that the legislators were "enough impressed by a particular need to draft a new provision to meet that need." Who impressed the Senators? It is at least possible that Section 305 was a political bone thrown to parochial school partisans in return for support of the whole bill and that the "quiet" approach was motivated entirely by political strategy and had nothing to do with national defense or educational considerations.

This account of the legislative history is not an attempt to prove that there was any particular conspiracy surrounding Section 305. Inserting a "hot" provision into a bill at the last minute in order to avoid the controversy open debate would bring is a fairly common, if ques-

tionable, legislative practice. My point is that, if these parochial school loans were so overwhelmingly important to the public welfare that they must be sustained against constitutional prohibitions, as Mr. Radcliffe contends, the importance of the loans did not become apparent until suspiciously late in the game. Furthermore, in 1958 when N.D.E.A. was inaugurated, Section 305 was never given anything like the normal scrutiny by public officials or private groups that the rest of the bill received.

Therefore, the only legislative history peculiar to the Section 305 loans took place in 1961 when N.D.E.A. came up for extension. Mr. Radcliffe dismisses my discussion of these hearings as "wholly irrelevant" since they took place three years after the initial passage of the Act. Nevertheless, they constitute the only time Section 305 was ever publicly considered. Technically, too, it is the extension of N.D.E.A., not the original Act, that we live under today. It is in the 1961 hearings on extension of N.D.E.A. that the "secular" subject concept was consistently advanced. No other rationale was ever articulated. Mr. Radcliffe hypothesizes that it is improbable that "those sophisticated men were so naive as to think that there is no religious content in the study of science." Perhaps so, but from the public reaction to my study and discussions with Office of Education personnel and legislators, I know that the possibilities of teaching religion through the so-called secular subjects were almost entirely unknown to them.

The consideration of constitutional law in "Religious Schools and 'Secular' Subjects" was limited to citing what seemed to be the House Committee's attitude based on remarks in the Hearings and the Department of Health, Education and Welfare's legal "Memorandum

on the Impact of the First Amendment to the Constitution upon Federal Aid to Education" and a few concluding comments of my own. Mr. Radcliffe takes me to task for such a sketchy treatment, perhaps justly so. Unfortunately, I have very little space here. The reader interested in a fuller discussion may consult La Noue, "Public Funds for Parochial Schools," National Council of Churches, April, 1963.

Mr. Radcliffe is obviously an exponent of the judicial restraint school, while I am, on civil liberties questions at least, a judicial activist. His citation of judicial restraint passages can easily be balanced by quotations from cases in which the Justices were in a more aroused mood. But my differences with Mr. Radcliffe are not entirely those of philosophy. His repeated use of *Cochran v. Board of Education* to demonstrate an interpretation of the establishment clause of the First Amendment is entirely incorrect. The fact is that the establishment clause was not at issue in *Cochran*. As Mr. Justice Brennan recently said of *Cochran*, "The case raised no issue under the First Amendment." Mr. Radcliffe's error in thinking *Cochran* was a First Amendment case seriously mars his discussion of the relevant law and his interpretation of legislative history. Actually, all *Cochran* decided was that state action providing secular textbooks to all school children had a legitimate public purpose. Whether, in spite of a valid public purpose, the establishment clause was violated is a question which *Cochran* does not and could not answer. It was not until seventeen years later that the Court finally decided that it was permissible to apply the establishment clause to state action. Since, as I have demonstrated, the courses themselves teach religion, it is quite possible that some of the Section 305 equipment (movie projectors, for

example) has been adapted for religious teaching. Perhaps the loans do not even meet the limited strictures *Cochran* proposes.

In Mr. Radcliffe's discussion of *Everson v. Board of Education*, he again focuses on the public purpose issue instead of the establishment issue, although in that case both are present. When, in a five to four decision, the *Everson* Court decided to uphold the state action reimbursing parents of children who rode regular municipal buses to parochial schools, Mr. Justice Black remarked for the majority,

The State contributes no money to the schools. It does not support them. Its legislation, as applied, does no more than provide a general program to help parents get their children, regardless of religion, safely and expeditiously to and from accredited schools.

Whether the Court would consider the Section 305 program, since it involves loans, in the same category as support or contributions to parochial schools is a question worth extended discussion. But it is clear that the program represents a far greater public involvement in the religious educational process than occurred in the New Jersey situation where no contract or administrative relationship between church and state existed at all.

Finally it needs to be noted that Justice Douglas, whose vote was necessary to the five man *Everson* majority, has changed his mind and now would not uphold the New Jersey bus arrangement. In the Regents' Prayer case, he also noted,

The point for decision is whether the government can constitutionally finance a religious exercise. Our system at the federal and state levels is

presently honeycombed with such financing. Nevertheless, I think it is an unconstitutional undertaking whatever form it takes.

To make that clearer he added in his recent *Abington School District v. Schempp* concurrence,

The most effective way to establish any institution is to finance it; and this truth is reflected in the appeals by church groups for public funds to finance their religious schools.

Perhaps it was Mr. Radcliffe's error in interpreting *Cochran* that led him to argue that the relevant criterion in determining a violation of the establishment clause is whether a broad and legitimate public purpose existed or whether there was specific intent to aid a religious institution. That this emphasis on motive in legislation is much too narrow is indicated in the Supreme Court's most recent treatment of the establishment clause. *Abington School District v. Schempp*, the Bible reading case, handed down unfortunately after Mr. Radcliffe had completed his article, states that the principle is "... to withstand the strictures of the Establishment Clause there must be a secular legislative purpose and a primary effect that neither advances nor inhibits religion." Since ninety percent of the schools benefitted by Section 305 are religious schools, the Court might well find that a "primary effect" of the program was to enhance religious education.

Mr. Radcliffe would dissent here. He would argue that the loans "do not actually support the basic, ongoing program of the schools, but merely strengthen it." Moreover, he concedes that there is no particular public interest in expansion of parochial or private schools. While it is true that other hypothetical forms of federal aid to paro-

chial schools would do more to expand and support them than do the Section 305 loans, the distinction is not absolute. The Office of Education's "Report on the National Defense Education Act" states that one of the purposes for which private schools request the loans is to provide for increased enrollments. Certainly improved facilities and expanded course offerings increase the competitive stature of private schools and enable them to attract new teachers and students. Favorable government loans for equipment permits use of working capital for other purposes. To quote Mr. Justice Douglas again on the subject of financing church schools,

Financing a church either in its strictly religious activities or in its other activities is equally unconstitutional, as I understand the Establishment Clause. Budgets for one activity may be technically separable from budgets for others. But the institution is an inseparable whole, a living organism, which is strengthened in proselytizing when it is strengthened in any department by contributions from other than its own members.

Essentially discussions over constitutionality are predictions of what the Supreme Court would do if a particular piece of legislation came before it. Recently the Court has reasserted the vigor of the establishment clause in *Engel v. Vitale* and *Abington School District v. Schempp*, and it is moving to correct past abuses. My prediction is that the Court would strike down the Section 305 loans. Probably even after reconsidering *Cochran* and looking at the new decisions, Mr. Radcliffe would not agree. These are difficult questions and reasonable men can disagree. In making a prediction, however, one should seriously note *Dickman v. School District, Oregon City* 366 P.2d. 553 (1961) in

which the Oregon State Supreme Court after considerations similar to that in my article, held state provision of secular textbooks that had been adapted for religious purposes unconstitutional.

There is one point, however, at which Mr. Radcliffe and I are in complete agreement. There is a responsibility on all of us to seek out ways in which the best possible education may be available to every student. I believe this can be achieved for pupils primarily attending parochial schools without any violation of constitutional principles or acceleration of the decline of public schools. I have detailed some of these considerations in an article discussing educational television, summer schools and shared time (See La Noue, "Federal Concern For Quality in the Education of Non-Public School Students" in *Pioneer Ideas in Education*, 2nd Edition, House Committee on Education and Labor).

In short, I believe there are other and better ways to insure good education in sciences, mathematics and foreign languages for students primarily attending parochial schools.

Mr. Radcliffe and I, then, disagree over method, not over the ultimate goal.

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HORACE MANN AT BROWN

To the Editors:

Professor Messerli's essay on "Horace Mann at Brown" (H.E.R. Summer, 1963) illuminates both the formative years of Mann's career and characteristic aspects of life in the pre-Civil War college. His conclusions concur with much that has been written about Brown University and other early American colleges. Stressing Brown's academic deficiencies, he sees in President

Asa Messer the familiar figure of the old-time college head, preoccupied with undergraduate discipline. Horace Mann's most valuable educational experiences, he concludes, came not in the classroom, but from participation in literary and oratorical activities with his fellow students; "almost inadvertently" these associations promoted social and intellectual growth.

In his undergraduate experience as well as in his social and geographical origins, Mann was a typical Brown student of his time. Undoubtedly, however, he had a more perceptive understanding of the institution and its faculty than Professor Messerli's sources reveal. He returned to Brown as tutor and librarian from 1820 to 1823, and married President Messer's daughter in 1830; hence he was well aware of the decade of conflict which followed his graduation. From 1819 to 1826 a determined group of orthodox Baptist trustees sought to oust Asa Messer for his liberal views of the Trinity. They succeeded after a climactic period (1824-1826) in which student disorder, faculty resignations, and abusive pamphlets and newspaper articles made his position untenable. Undercurrents of discontent and controversy persisted into the thirties, by which time the faculty had completely changed. In time of crisis Asa Messer's susceptibility to caricature and his failure to develop an awe-inspiring reputation proved serious liabilities. The turmoil of this period, contrasted with the restoration of strict discipline and marked improvement in teaching by the new faculty assembled around his famous successor, Francis Wayland, has lent support to the view that the Messer era was one of the low points in Brown's history.

This assessment, however, should not stand without qualification, and in evaluating it several of Professor Messerli's

incidental sources are more important than he suggests. Solomon Lincoln's pamphlet, for example, appeared as a reaction to statements about Brown's condition before 1827 made at the 1864 Centennial celebrations and in eulogies of Francis Wayland in 1865-1866. Messer's policy, Lincoln argued, "was that of demand and supply. He offered the country such a college education as it could pay for; and such, too, as the necessities of its condition then compelled it gladly to accept." Higher standards, briefer vacations, and more rigorous discipline, commonly cited as significant improvements of the Wayland regime, had they been introduced earlier, would have excluded from the college many of its most useful graduates. The very features which attracted Horace Mann were assets which drew countless poor boys to Providence.

Lincoln overstated his case, but his contention that Brown's "popular" features were essential to its survival and growth was recognized on important occasions by many of the university's most important supporters. When Francis Wayland seemed to ignore community sentiment in the late twenties by embarking boldly on reforms patterned after improvements made in Cambridge between 1815 and 1825, such critics as Tristam Burges and Benjamin F. Hallett, then editor of the *Rhode Island American*, cautioned that Brown's constituency was not yet ready to support a Harvard College. Actually Wayland's own sympathies were always with "popular" education. Eventually, when Brown's enrollment declined after the panic of 1837, he found in the laws of supply and demand justification for sweeping reforms which emphasized applied sciences, elective courses, and alternative degrees in an effort to attract students who did not find the traditional college course a useful prepara-

tion for their future vocations. In its popular and pragmatic approach Wayland's famous *Report to the Corporation* of 1850 was a latter-day version of the 1815 *Letter to the Corporation*, possibly written by James Burrill, a leading Providence lawyer, under the pseudonym "Alumnus Brunensis". Only a few of the proposals of this pamphlet had been realized before Horace Mann's graduation. In the twenties, however, rising prosperity and increased enrollment inspired important additions to the college's facilities and to its faculty, and these continued until 1840, despite the conflicts at the time of Asa Messer's resignation.

The principal benefactions during this period, as well as the steady guidance which enabled the college to survive disruptive quarrels, came from a small circle of aristocratic patrons, principally members of the Brown and Ives families of Providence. Their support was an indispensable source of strength, one which few American colleges enjoyed. Yet the mercantile patrons were themselves solicitous for Brown's popular reputation, and several of their principal donations were responses to signs of growing public favor. They were loyal supporters both of Asa Messer and of Francis Wayland, and they backed

Wayland's projects for popular education as well as his attempts to transplant the Ticknor-Story reforms from Harvard. If Professor Messerli has delineated those features of the early American college which seemed most important to students and to the public, he has not only helped to explain obvious deficiencies in the formal education which such institutions provided, but has also suggested one of the basic factors underlying all educational reform in this period. The national faith in progress, reflected in Horace Mann's collegiate compositions, was moral and emotional rather than intellectual in nature. Its counterpart was a public sentiment which generally considered the moral atmosphere of schools and colleges more vital than their intellectual strength. This concern was the starting point for both the conservative Yale Report of 1828 and the reforms of the scholarly George Ticknor at Harvard. It pervades the history of Brown University under Francis Wayland as well as under Asa Messer, and it links Horace Mann's undergraduate enthusiasms with his later work as an educational reformer.

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Book Reviews

THE DEMOCRATIC PROSPECT.

by Charles Frankel.

New York: Harper & Row, 1963,
222 pp. \$4.00.

The claim that Americans are increasingly beset by vague feelings of discontent rather than definite political grievances about specifiable ills has become commonplace. The point has been made in various ways. Arthur Schlesinger, Jr. has described it as the transition from quantitative to qualitative liberalism. Others complain about pervasive *alienation*.¹ Professor Frankel tells us that we are entering an era of unfocussed worry and moral ennui. Insofar as his book has a central thesis, it is that in large part the worry and ennui are (1) due to failure to understand the democratic process as it functions in the existing social context, and (2) due to important institutional defects in that process and that context. In his book he tends to balance the two aspects of his central thesis against one another. "Our

democratic professions obviously diverge from our practices at many points, and at many points our practices are wrong. But at many other points the trouble lies not in our practices but in our stars—in the obscure and mistaken conceptions of ideal democracy that we hold, conceptions that tell us neither what is possible nor what is desirable" (p. 9).

This book has style, discipline, substance, and orderly development of argument found all too seldom in current works on political philosophy. It is not possible adequately to summarize this book's rich content in a short review. Instead I will describe the framework of Frankel's argument, and discuss a few of the more basic problems he so provocatively raises.

According to Frankel, democracy is in its primary aspect political. As such it "is a system in which men acquire the right to govern through a system of free and open competition for votes, and in which they make their decisions while under the pressure of outside groups whose right to put them under pressure they must protect." (p. 30) But under-

¹Cf. Erich Fromm, *The Sane Society*, Rinehart, 1955, and Marx's *Conception of Man*, Ungar, 1961.

lying democracy are certain attitudes, and commitment to certain ideals with respect to which democracy is instrumental. Broadly speaking, the attitudes are those which lead men to stress human dignity, community, and fair dealing on the one hand, freedom and personal development on the other. The ideals are consent of the governed, an open society, individual autonomy, and responsible government. Frankel examines each of the four ideals with the aim of exposing both those imperfections in the democratic ideal which frustrate their achievement, and failure to understand the nature of these ideals and their appropriate institutional embodiment.

Frankel's argument is studded with ingenious suggestions, perceptive observations, and provocative comments, only a few of which are mentioned below.

Arguing that the Welfare State substitutes the right to a decent minimum for charity, he writes, "In what has been taken to be its noblest form, charity is a free gift, a form of assistance to others who have no right to such assistance. This is undoubtedly why it has been thought more blessed to give than to receive: it is more agreeable to the ego" (p. 136).

In criticism of those who attack the welfare state on grounds that the planning it requires jeopardizes individual freedom and autonomy, he argues that the Welfare State does too much when it does too little. His point is that the more comprehensive and complete the planning, the less need there is for active intervention in the lives of individuals. The thesis is argued in an original and convincing manner.

Frankel argues that the key to developing an adequate consent among the governed lies in properly understanding the role of voluntary and quasi-volun-

tary associations, and in social policy which enables them to fulfill those functions. The key to achieving a more deliberative consent lies in a more active involvement of the professions—primarily as moderators dedicated to standards of intellectual discipline and exploration of all alternatives.

In counteracting what he regards as illegitimate criticism of bureaucracy, the author argues that in replacing the shelter of family and local government bureaucracies may actually promote personal freedom. For families and local governments may impose a stifling authority which the impersonality of bureaucracy precludes. Furthermore, by promoting the distinction between nature and convention, "between facts of life that leave... no choice and arrangements that can be altered" (p. 110), bureaucracy and technology make a "fundamental contribution to the progress of liberal civilization" (p. 110).

In one of his most provocative sections, Frankel argues that to condemn egalitarianism on grounds that it is an expression of envy is misguided. "If we take the bleakest point of view," he writes, "and conceive the passion for equality to be only envy under an assumed name, the redistributive Welfare State makes a kind of practical sense that political realists should adore" (p. 132). That is to say, if envy is as pervasive and inevitable as men like De Jouvenal seem to claim, then it has at least as much claim to be accommodated as the greed and ambition (which are surely sentiments no more Christian than envy), which an incentive system is designed to exploit.

Despite the architectural splendor of structure and parts, Frankel's argument rests on essentially weak foundations. The prime symptom of these difficulties is his tendency to balance purported virtues of existing institutional arrange-

ments against purported defects. The tendency of the book is to leave one with the impression that, after all is said and done, the more radical criticisms of the American social system are informed by faulty understanding and guided by faulty political ideals. Technology and bureaucracy have their defects, but they have their virtues. There is an extreme right, but there is also an extreme left. Mass culture is certainly pernicious, but it has important advantages. We have not fully implemented the ideal of an open society, but we have come reasonably close to doing so. There are anti-democrats among us, but there are also naively unrealistic notions of a "populist" democracy. The tendency of this sort of balancing is to deflate the many and provocative criticisms of existing social arrangements which Frankel does make, and to lead him to neglect the many basic features of our social system which require, even demand, thoroughgoing, *radical* reconstruction. And in no respect is it more important to implement such changes than in that which has to do with the nature, quality, and extent of democratic arrangements. Walter Lippmann,² whom Frankel constantly criticizes, is much closer to giving us an adequate *diagnosis* of the present plight of our democratic arrangements than Frankel. And Gunnar Myrdal,³ whom Frankel mentions approvingly, is more challenging and adequate in proposing the lines along which society must develop once the comprehensive welfare state is approximated to a reasonable degree. For Lippmann acknowledges more fully than Frankel the extent to which the deliberative element is excluded and Myrdal acknowledges more fully than Frankel

the extent to which this deliberative element, as well as many of the other virtues of a democratic system, depend on a more participative democracy. It will not do to shrug this proposal aside with comments about the unrealism of "populist" ideas about democracy. Nor will his proposals for greater intervention by the professions, greater scope for and better organization within voluntary and quasi-voluntary associations, greater scope for our higher faculties in the work process, more creative use of leisure time, a more comprehensive social welfare system, et al., constitute more than anodynes for treating the current malaise if this fundamental need is not met by the right kinds of social policy. This need can only be met, I am convinced, by radical reconstruction of our industrial institutions (perhaps along lines suggested by the social experiment on which Yugoslavia has embarked), our local political arrangements (perhaps along lines suggested by the social experiment on which Pakistan has embarked), and our system of education (perhaps along lines which require breaking up our mammoth universities). This is not to deny the importance of those reforms Frankel recommends, but rather to insist on the importance of much that he neglects. It would indeed be unrealistic to suppose that the required changes should be brought about today or tomorrow; but it is the worst kind of unrealism for a philosopher to fail to hold such changes up as part of that ideal society at which we should all *aim* simply because they are, at the moment, practically unfeasible.

This points up another defect of the book. Frankel is at his brilliant best in rejecting the claim that every occupant of a power-conferring functional slot must behave like some soul at the last reckoning, in meeting his responsibili-

² *Essays in the Public Philosophy*, Boston: Little, Brown, 1955.

³ *Beyond the Welfare State*, Yale University Press, 1960.

ties. No doubt there are rules which partly define such functional roles, rules which require one to decide and act in ways inconsistent with what he would most like to have happen. The judicial function is the archetypical instance of such a slot. But Frankel fails to stress the opposite—and I think more dangerous—aspect of this problem. We do not have to remind our leaders to be restrained by their perception of their role. They are all too inclined to inhibit themselves in this way. Nor is the basic problem that of reminding our leaders of the many degrees of freedom they actually have—that business is almost never, after all, merely business. What does require constant emphasis is the tendency of those who do *not* occupy such positions of functional responsibility to "role-play"—to deliberate and act as if they did occupy such positions of responsibility, and thereby fail to discharge their own responsibilities adequately. It is not Peter's business to act as he thinks Paul must act if Paul is president and Peter a philosopher. There is some tendency to this sort of error in Frankel's book. By straining to see things from the heights, he often fails to see how things are at the depths. In no respect is this more damaging to his general outlook than in the way this leads him to shy away from careful consideration of certain radical proposals for institutional change.

Political democracy does, as Frankel rightly stresses against critics, create opportunities for change in very radical directions. But these opportunities may be only formal. (One does not have to endorse the Marxist thesis that parliamentary government is only a "talking shop," to see the point of the claim.) The *de facto* shape of a political democracy may, as it does in the United States, actually frustrate opportunity for desirable change. It could be argued, for

example, that reapportionment along lines that accord areas in which populations are relatively dense a greater electoral voice would do more than any other proposal to make our existing democracy work better. But such a measure would also be but a palliative unless it were buttressed by institutions designed to generate a more *deliberative* and *concerned* consensus. Frankel is admittedly concerned about this problem; but his concern seems constrained by invisible and unjustified limitations.

It is one thing to be optimistic because one wears rose-tinted glasses; it is another to be optimistic about the possibility of achieving radical remedies for radical social ills. No one has expressed this view more eloquently and more persuasively than Frankel himself in an earlier volume.⁴ Without denying the manifold merits of the present volume, I have stressed the extent to which Frankel seems to have moved from those earlier moorings. Still, the greatest merit of this book, or, for that matter, any work in political theory, is that it forces one to stop dogmatizing about such matters, and to begin to argue them in a disciplined fashion. If my response seems sharp, it is only because I believe this book deserves one's most careful and sustained attention.

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* *The Case for Modern Man*, Harper Bros. & Co., 1956.

EDUCATION AND THE CULT OF EFFICIENCY.

Raymond E. Callahan.
Chicago: University of Chicago Press, 1962. 264 pp. \$5.50.

This is an excellent history of the influence of business ideology on American schools during this century. Profes-

sor Callahan dwells especially on the craze for "scientific management" after Frederick Taylor, 1910; but in his conclusion he deliciously quotes from *Fortune*, October, 1958, "The schools have just begun to discover scientific management!" (The article is called "The Low Productivity of the Education Industry.") Throughout, whether he is developing the actuarial advantage of balancing every left-back with a double-promotion or quoting plagiarisms-of-nonsense by distinguished Professors of Educational Administration, Professor Callahan's documentation is grimly hilarious. The book is worth reading if only for its dismal fun.

Lurking always in the background of the cult of Efficiency is the utter confusion of the public, its moral prejudice and greed, its lust for both conformity and fad, its zeal for strict cost-accounting in public goods during the very decades when the country was becoming so disgustingly rich and spend-thrift in private goods. One is struck not so much by the petty-bourgeois stinginess of the Americans (the kind of thing castigated in France by Balzac), as by their narrow Gradgrind suspiciousness of the ideal, the communal, the animal, as criticized for a century by William Morris, Matthew Arnold, Coleridge, our own John Dewey. The teachers, meanwhile, have not had enough professional dignity, nor indeed competence and confidence, to withstand public pressure.

Professor Callahan rightly lays great stress on the vulnerability and timidity of the teachers. He shows in detail the economic, constitutional, bureaucratic, and academic sources of their weakness. I am not sure, however, that he touches the essence. In my opinion, good teaching, the kind of teaching that alone can make a man confident that he has a real function and is therefore bound to fight or quit, is at many points in revolution-

ary opposition to the kind of society responsible for the conditions described in this book. Pedagogy is a profession and must have functional autonomy; but what if American—and indeed worldwide—society of the twentieth century is incompatible with the action of teachers toward the free growth of the young in an advancing culture? If so, teachers will not be allowed to be professional, and they must remain vulnerable to lay pressure.

Like a loyal schoolman, Professor Callahan would like bigger appropriations for the school. "There is no doubt," says he, "that more money is needed. Testimony in this regard has been given forcefully by Walter Lippman, Nelson Rockefeller, John Kennedy, and Richard Nixon." This is not a promising list of sponsors for rational pedagogy. Let me quote a sentence from the presently most prestigious of them. In his message on education of January, 1963, Mr. Kennedy asked the Congress for more money for schools because "vast areas of the unknown are daily being explored for economic, military, medical, and other reasons." (The motives of Newton or Darwin were among the "other reasons.") Now, I too think we ought to devote immensely more of our energy and resources to ideal, animal, and community goods, but I do not want the sponsorship of the man who wrote that sentence, and personally I wouldn't vote him a penny. Professor Callahan points out, in one brief sentence, that the current pressure for science, mathematics, and foreign languages is also faddish and irrelevant; but my only bother with this fine book is that he never lets on what his own philosophy of education is, though I am sure he has one. What, to him, are the intrinsic motives of teaching and learning, from which a teacher could derive inspiration and courage to withstand

social pressure? Do they perhaps conflict with the expanding GNP, the Cold War, the mass media, the garrison state? If so, why should our society, that seems well pleased with itself, support the schools with any bigger appropriations than are necessary for baby-sitting, policing, and apprentice-training for the corporations and the Pentagon? Or, to quote Dr. Conant, to dampen the dynamite in the cities?

More deeply, consider another dilemma that makes teachers vulnerable as professionals. Professor Callahan rightly praises our hard goal of educating everybody. But he does not ask what is involved in this. In 1900, about 6% of 17-year-olds graduated from high school. (One in 400 went on to college. Figures of the N. Y. Board of Education.) We may assume that most of those who stayed in school did so because academic work suited them; and perhaps there were as many again who would have continued in school if they could have afforded to. At that time, teachers could have the professional confidence of a traditional curriculum that they believed in, and of teaching more or less willing students. In 1960, however, more than 60% graduated (most of the remainder being rural or underprivileged-urban "dropouts"; in 1900 one would not have called them "drop-outs"). There is no doubt that the great majority of these ought not to be in bookish surroundings at all. If teaching means "school" teaching, how, with such "students," can teachers be professionals?

Every one should be educated, but not necessarily bookishly. Most adolescents should be getting their education in work-camps, on small farms, in Folk-schools of the Danish kind, paid craft-apprenticeships, little theater and performing arts, mobilization for youth and Peace Corps, etc., in the many varie-

ties of setting and curriculum that inventive pedagogues and a society concerned to make the most of its new human resources can devise to educate various aptitudes, interests, and conditions, allowing for elective passage from one setting to another. This is simple sense. Instead we cram, or try to cram, all youth into something called "Schools." Naturally, the teachers then become drillmasters for test-passing, or entertainers, or disciplinarians. These are not professions. Their grounds are extrinsic.

What has happened in these sixty years? With the universalization of the opportunity for formal education, the schoolmen have simply expanded their traditional set-up, often necessarily diluting it academically, and comically making up with Advanced Placement and Enrichment. There is panic at the dropouts. (The middle-class college attrition is 50%.) Because it is customary, the public has underwritten this kind of expansion, though stingily. Real teachers, however, would by now have devised a dozen new set-ups to cope with the universal enrollment. Some of these set-ups would not look like "schools" at all; probably the public would refuse to underwrite them; and surely the present school-administrators would not be in charge of them.

I trust Professor Callahan will forgive me for introducing in a review these topics which are not, of course, part of his subject. But my point is that we cannot hope for teachers to be professionals, less vulnerable to social pressure, until they are willing to be more philosophical and radical than they are, more resistant to bad social policy, false notions of bookish prestige, and false democracy. When men believe in what they are doing, they can fight.

Where Professor Callahan is at his very best—and it is the main fabric

of *Education and the Cult of Efficiency*—is in showing how during these sixty years there has developed a strangled network of baneful mutually-causing influences: misguided school-boards, universities catering to the misguided with absurd courses, textbooks that sweep the field and stereotype a bad idea, a new generation of graduates who have never been exposed to anything else, an emphasis on Images to play it safe and get funds, further deception of the laity, principles of certification that rule out the best. In this kind of devolution, there is inevitably a selection of administrative personalities who rise to the top and make further decisions in the same downward spirit. The book contains typical thumbnail biographies.

Professor Callahan pays a fine tribute to the many teachers who, in spite of all, "have worked patiently and silently to provide the best education possible. At the mercy of every arrogant editor, every self-seeking politician, and every self-righteous protector of the public money, they and their families had to believe strongly in what they were doing or they would have left the field." I wish that he, or somebody like-minded, would write us a book about the stubborn, devious, and subversive devices of these heroes, to be used as a syllabus and manual.

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REASON AND CONDUCT: NEW BEARINGS
IN MORAL PHILOSOPHY.
Henry David Aiken.
New York: Alfred A. Knopf, Inc., 1962.
375 pp. \$6.75.

Reason and Conduct is not quite a book in the usual sense, yet it is more than a collection of essays. The preface and the last essay may be viewed as the bread holding together the several slices

of meat in a rather palatable philosophical sandwich. The author has chosen sixteen of his papers on moral philosophy "to be rescued from the oblivion of periodical publication" (viii). These are not presented in chronological order but have been reordered and grouped in two categories. The first represents his "efforts to find answers to the questions of analytical ethics" (viii). The second offers, in the main, a selection of somewhat more than extended reviews of positions of several contemporary philosophers. They exemplify quite well the technique of criticism for the sake of analysis and contribution to thinking about the problems with which these writers were concerned. With the latter group there is an interesting discussion of freedom and liberty set against the backdrop of the works of Mill and a manuscript once attributed to Mill. There is also a most beautifully styled essay in critical appreciation of Santayana. Throughout the volume the author demonstrates that one need not write 'ordinary' when engaged in the analysis of moral discourse in ordinary language. And, as the author points out so clearly in the preface and in the concluding essay, it is about and for such analysis that this volume is presented.

But the task of the moral philosopher, as Aiken sees it, is not encompassed within the limits of detached analysis of terms and their interrelationships as they are used in moral discourse. Certainly, he wishes to promote this conception of moral philosophy, but not as the whole of the moral philosopher's concern. He does battle against the views that would reify or deify the terms of ethical discourse under whatever colors they might sail. He endeavors to sweep the seas of all positions save that which takes the meaning of such terms to be found in the ways that people use them. Morality has

meaning in practice or use; this meaning is not to be captured by contemplating one's navel, by looking hard at things, or by casting the mind up in search of the source of such beatific visions as might be heralded by the muffled sound of angels' wings. One man's angels' wings might be another's bats in the belfry. Still, he also seeks to defend the position that morality has meaning against the possible onslaught of an extremist extension of logical positivism, and the more subtle erosion of radical emotivism. The question is whether his efforts at attack do not leave his defenses open.

It is difficult to take hold of what Aiken is trying to say when he says that morality has meaning. Consider the following: "That ethical terms *are used descriptively, as well as normatively*, is a thesis which underlies all of my work in ethics and value theory. This thesis, if correct, precludes the need for serious controversy between the so-called 'cognitivists' and 'non-cognitivists'" (p. 106, note 4, Aiken's italics and quotes). Now, this thesis may be quite informative in telling us what Aiken believes, or indeed, what bothers him about recent discussions in ethics and value theory. However, it acts more as a principle for criticizing these discussions than as a thesis to be defended. One begins to feel that Aiken wants to train his powerful analytical guns on the cognitivists and the non-cognitivists alike while reiterating the credo 'There is morality.' But this is unfair. In fact, his slogans are more like 'Know thyself' and 'The unexamined life is not worth living' both writ large and both as guides to the analysis of morality and as principles of morality (see for examples pp. 133 and 368). He wants us to look at morality in a particular way as analysts and as moral agents. This position may be seen in the following passages:

As a pragmatist, I am bound to think that every philosopher, analytical or otherwise, is first and last a moralist, and that his study either of the "language" of morals or of any other language is merely preliminary to the conduct of life. (xiii Aiken's quotes)

There is and can be no definitive criterion of moral objectivity and, hence, no definitive principle of moral right and wrong. When a serious question about the objectivity of a particular moral judgment or principle arises, there is simply the further *moral obligation* to reexamine it in the light of the other obligations and duties that have a bearing upon it.... The principle of moral objectivity can neither supply the materials for moral judgment nor tell us where to go in search of them. If we have no time to search for further possibly relevant facts, the principle of objectivity will provide us with not one moment more; if we are otherwise lacking in moral sensibility, it will not make good our deficiency by so much as a single obligation. What it can do—and it can do no more—is to dispose us to review our decisions so that we may neglect no pertinent fact that is available to us in the time we have, and that we may neglect no obligation which deserves to be considered. Primarily, therefore, it functions as a principle of falsification, and what consistently survives the general scrutiny which it demands may pass as objectively valid or true. (pp. 166-67, Aiken's italics)

The problem now is to determine whether Aiken is not promoting confusion in this discussion of 'objectivity,' 'moral sensibility,' and 'falsification' and/or whether he does not run afoul

of his own conviction as he stated it elsewhere, "I would not... write my own moral convictions into the very language of morals precisely because this would reduce my own subsequent freedom as a moral critic and agent." (p. 221) When one does this "he is also trying to reduce the area of his own responsibility as a moral judge.... [This] would convert his own moral life into a kind of game... [and thus] immorality automatically becomes a matter not of conscience but of taste, and those whose tastes run in other directions are then at liberty to play an entirely different sort of game, or else to play as they please according to no rules at all." (pp. 221-22) Aiken is 'guilty' on both counts.

He appears to be trying to establish an ordinary (as opposed to a scientific) language conception of the term 'objectivity.' When he states that "in morals there can be no guarantee that all objective judges will acknowledge the same principles of moral obligation" (p. 169); when he states that "the problem of moral objectivity is mainly a problem of piecemeal mutual adjustment of acknowledged commitments within a loose framework of precepts and practices, none of which is ever permanently earmarked as an absolutely first principle and each of which is subject to a list of exceptions that can never be exhaustively stated" (p. 161); when he contends against the excesses of identifying objectivity and intersubjective agreement (p. 159) as well as the very possibility of a disinterested objective observer in morality (pp. 152-57); and when he states that the "principle of objectivity in morals is... essentially a principle of reconsideration" (p. 163); he is selling a particular definition of objectivity. He is not merely analyzing; he is legislating. From an analysis of the way 'objectivity' is used, he proceeds to tell us how it ought to be limited and

that it ought to be used but within these limits. But it is a curious use of the term 'objectivity.' What the scientists are engaged in, it would seem, is the establishment of principles on the assumption that their objectivity is supported by the extent to which criteria and procedures for their establishment are agreed upon such that they could appeal to an ideal observer.

The issue here is not with Aiken's pronouncements about morality. I respect and am in deepest sympathy with his position. What is at issue, however, is whether he is attempting to support this position by holding firmly to the term 'objectivity' while insisting upon its definition in terms incompatible with the scientific conception from which it derives its emotive impact. If 'objectivity' requires such major surgery to be retained as a moral principle, why is the term retained? It is retained in the endeavor to influence commitment to the idea that the fundamental defining characteristic of morality is the principle of reconsideration, and to the idea that it is the task of the moral philosopher to apply himself to the clarification of the business of morality thus conceived. Aiken's principle may be less limiting than others. Nevertheless, the task that he sets for himself seems to ask too much of the moral philosopher who would be both moralist and philosopher. It is not at all clear that he can avoid defining his moral principle into the language of morals.

At the conclusion of his essay on moral objectivity Aiken states:

To the extent that moral communities differ fundamentally in regard to their moral precepts and practices, it is pointless to speak of their judgments as logically contradictory. For in that case it is also pointless to talk of an objective settlement of their

differences. At such a point, what is wanted is not argument, but education; not the appeal to non-existent principles of morals, but companionship and love. (p. 170)

It is a rather queer notion of objectivity that can not tell us how to determine who should educate whom in such a situation. I do not think it is such a queer notion of morality which recognizes this fact yet enjoins us to educate rather than to fight, and to come together in love rather than to separate in hatred. It is certainly worthy of critical and sympathetic consideration.

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POPULAR EDUCATION AND
DEMOCRATIC THOUGHT IN AMERICA.
Rush Welter.
New York: Columbia University Press,
1962. 473 pp. \$8.50.

Elsewhere, Professor Charles A. Barker has remarked on this book's power to disturb a reader. Very possibly historians and educators will feel impelled to come to terms with the author's educational interpretation of democratic thought in America. The book may well find a place within the historical canon—and presently the Welter Thesis may become stock equipment of examiners: Mr. Candidate, what evidence is there for saying that a belief in popular education has been the archetypal element in American political thinking? At the book's appearance, the critical question that must be asked is whether it deserves that place and that fate.

The nub of Professor Welter's cardinal argument has already been indicated. His investigation, which moves chronologically through published writings of more than a century and a half,

yields a documented case for a Copernican revolution. In a literary style typical of the book, the author states: "Scholars have gone too far in recent years in treating ideas as the passive accomplices of personal and group interest, whereas it should be clear that an established doctrine or belief may influence cognition itself by defining the terms in which successive generations understand themselves and their problems. It is time, at least so far as the idea of education is concerned, to recognize how powerfully it has affected our social and political judgments . . ." (p. 3). In brief, those judgments have revolved around the idea of education. Welter does establish a presumption—which this reviewer is predisposed to accept—that the idea of education has occupied a position at the center of democratic thought and has not merely been set in motion by special interests to restrain popular government or to distract public attention from exploitation of the people: consider the evidence that the common school was believed in as an engine of democracy rather than as its governor and that informal education was of the essence of progressive reform. In dealing with his sources, however, Welter sometimes becomes trapped in the parochialism that has brought reproach upon the "history of education." Not content with discovering that education was essential, he pushes on to the implication, although not always the flat assertion, that it was all-important in democratic thought: "If progressives virtually limited reform to education . . ." (p. 266) Yet he fails to carry his thought, as distinct from his evidence, as far as he might. His very language constantly turns the mind back to the doctrine of "personal and group interest," which does influence his cognition. If the idea of education is an indispensable element, or even the arche-

typal element, of political thought, how can that thought be satisfactorily understood in terms derived from another conception of politics? The least one could expect, but does not find, in Welter's writing is a conspicuously guarded use of such words as *elitist*, *middle-class*, and the mischief-making triad, *conservative*, *liberal*, and *radical*. The revolution he has in mind creates new, sometimes startling alignments and calls for a fresh set of categories. In his universe, where education is the sun of American tradition, who is truly conservative but the believer in education, say John Dewey, and who the radical but the man who is skeptical about the political efficacy of education?

And Welter asserts that the Americans are more than just skeptical today. His primary argument is balanced against another—that Americans have virtually conceded the political failure of education. Its old purpose has come to seem visionary, and democratic theory itself is threatened. The Americans are so deeply committed to education, however, that they do not recognize the political impasse they have reached. What is the way out? As Welter believes that political practice and theory are at odds and himself thinks that educational innovation has not worked in political life, he might well have concluded by calling for a new theory that does not require education to continue an ineffectual attack upon whatever it is that has actually determined the course of politics. (*Is it interest?*) Traditional Utopianism has brought us nowhere and so let's start over: such seems to be the simple message of *Popular Education and Democratic Thought in America*. What the author actually says is less clear: "The preservation of American democratic institutions depends upon the reality, not the mythology, of democratic education" (p. 335). That sen-

tence, the last of the book, throws a curious light back across it. If education is to preserve those institutions, which must exist, it is sensible to suppose that education also entered into their creation—that political education did work somewhat, somehow. Did intelligence shape it? If so, as we traced the history of the idea, where did we miss the signs of thinking done to good purpose? Is the method the author has chosen bound to bring us to an irrelevant mythology?

Professor Welter presents a paradox of faith and frustration that is far more than a mere academic puzzle, but he leaves the reality of American education painfully obscure.

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THE SECOND CANADIAN CONFERENCE
ON EDUCATION: A REPORT
MONTREAL, 1962.

Edited by Fred W. Price.
Toronto: University of Toronto Press,
1962. xvii + 404 pp. \$6.00.

It is indicative of the nature and tone of the conference which it reports that this book bears a second title: "*Rapport de La Deuxième Conférence Canadienne sur L'Education. Montréal, 1962, Rédigé par Fred W. Price*," and that it is also "*publié par Les Presses de L'Université Laval*."

Unlike the report on the First Canadian Conference on Education, held in Ottawa in 1958, published in English, this report is a mosaic of French and English put together by a bilingual Canadian whose native tongue is English. There will be found a paper in English by M. M. S. Mehta, Principal and Vice-Chancellor, Rajasthan State University, India, followed by a paper in French by Son Excellence M. Ibrahima Ba, Min-

istre de la Jeunesse, Senegal. Some of the papers are given in one language alone with extracts in the second language. A few of the papers are in themselves mosaics, being partly in French and partly in English. Such was the address of welcome given on behalf of the Province of Quebec by the Hon. Paul Gérin-Lajoie, Minister of Youth for the Province of Quebec.

The Minister's address of welcome was something of a shock, bracing or numbing, to the English-speaking participants. Under a former Premier, Maurice Duplessis, who dominated Quebec from 1936 until his death in 1959, the Province of Quebec had isolated itself from the rest of Canada in matters relating to education, and those from Quebec who had participated in the previous conference of 1958 had been few in number and present without government sanction. Hence, English-speaking Canadians at the 1962 conference were delighted to sit back with many French-speaking Canadians*—nearly one-third of the approximately 2,000 delegates in attendance—obviously prepared to converse about and co-operate in the solutions to problems in education in Canada. Gérin-Lajoie made it plain that though the days of French-Canadian isolation were over, the days of French-Canadian expansion had arrived. He restated this axiom, "The Province of Quebec is the national state of French-Canadians" (p. 25).

He referred to the Royal Commissions set up at various levels to look into the educational system of French Canada and to make recommendations as to

* Possibly including Brother Jerome, the author of a book on education in Quebec which attracted considerable attention in the original French version, printed anonymously, and the English translation: *The Impertinences of Brother Anonymous*, translation by Miriam Chapin. Harvest House, 1962. 126 pp.

the long-term needs of education. He explained the haste for reform thus:

We have no choice! We owe this to ourselves, to our culture, and to our mission in Canada, to establish a policy of expansion, 'Une politique de grandeur', in the field of education. We also owe this to our English-speaking compatriots in other provinces, out of respect and friendship, and out of a common responsibility to enhance the collective life of this country. (p. 27)

Like the conference of 1958, which was originated by the Canadian Teachers' Federation, this conference was planned and called into being by business corporations and by voluntary groups or societies, the only notable exception being the Canadian Education Association.

The conference of 1962 was organized around eight areas of concern to all citizens: The Aims of Education, The Professional Status of Teachers, The Development of Student Potential, New Developments in Society, Financing Education, Continuing Education, Research in Education, and The Citizen in Education (lay leadership). This book explains briefly the preparation which preceded the conference and then becomes a carefully structured report of the conference itself.

After the report on the opening session which was dominated by church, state, and the university, there follows the report of the plenary session on the Aims of Education; three papers given, at a public meeting, by highly placed representatives on education in India, Africa, and South America.

One Part, VI, is devoted to the plenary session in which the conference was evaluated: a reply to Gérin-Lajoie made by the Vice-President of the University of Saskatchewan, Dean J. F.

Leddy, in a paper entitled "Education for Canada" and closing remarks made by Kurt Swinton, Chairman of the National Committee of the Canadian Conference on Education, during which his retirement was announced.

Part VII reports on the forums which were concerned with a variety of topics. These reports are summaries of the study groups which were held following panel discussions on the Professional Status of Teachers, the Development of Student Potential, New Developments in Society, Financing Education, Continuing Education, the Citizen in Education and Education and Employment. Booklets had been prepared in advance and the above subjects had been discussed by small groups of Canadians from every walk of life preparatory to the conference. The discussion at the conference was a continuation of these discussions in small groups, where there were mingled laymen and professionals from different parts of Canada. What naturally emerged was a statement of agreement and that not always reduced to the lowest common denominator.

Part VIII, The Assemblies, presented the panel discussions on Physical Fitness, Science and Mathematics in Secondary Schools, Television as a Teaching Aid, Programmed Learning, Learning a Second Language, Why Research in Education? and Reports on Two Projects (Metric Standardization; English Spelling Reform).

For a person desiring a survey of Canadian Education, this volume is helpful, at least in presenting the problems which are a clue to what has already been achieved, and the search for the right path for the future. Perhaps a more illuminating comment might be taken from the paper "Why Research in Education?" by Cecil Collins, "Improvement in education in Canada, in the

main, has in this century been by refinement, not by redefinition" (p. 391).

Made obvious for the reader are two great problems which have a common source: the guarantee to the French-Canadians of their language, religion, and culture given by the British in the Quebec Act of 1774, and incorporated in the British North America Act of 1867, at the time the Dominion of Canada was formed by the federal union of the former British North American colonies.

Under the British North America Act, education is a provincial right, and its support is a charge upon the provincial treasuries. Federal assistance can only be given by arrangement with the provinces, and such arrangements have usually encountered provincial opposition, especially from the Province of Quebec. Hence, the poorer of the provinces find it difficult to finance increasingly costly educational systems with the sources of revenue to which they are limited. Moreover, there is no federal agency similar to the Office of Education in the Department of Health, Education and Welfare in the United States or the Ministry for Higher Education in the Soviet Union, which in varying capacities can co-ordinate, experiment, collect and file, or co-operate on an international basis.

The second problem that besets Canadian education and which was to some English-speaking members most disturbingly in evidence at the meetings of which this book is a report, is the aspect of biculturalism. The aims of education as outlined in two outstanding papers, the one (pp. 41-64) by Very Rev. Henri Légaré, Rector of the University of Ottawa, President of National Conference of Canadian Universities and Colleges, and that (pp. 65-90) by Neville Scarfe, Dean of the Faculty of Educa-

tion, University of British Columbia, illustrate this problem to a certain extent.

Considering the dullness of reports on conferences of any kind, this record is better than average conference reporting.

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OCHERK RAZVITIYA SHKOLNOGO ISTORICHESKOGO OBRAZOVANIYA V SSSR [Outline of the Development of Historical Education in the Schools of the USSR].
L. P. Bushchik.
Moscow: Academy of Pedagogical Sciences, 1961. 537 pp.

The teaching of history in the Soviet Union is well worth the attention of anyone interested in the broader question of the relations between Soviet education and the Communist Party; for history, more than any other subject in the elementary- and secondary-school curricula, serves as a vehicle to convey the current version of the Party's ideology to the young generation. This book, written by a Soviet scholar who is also the author of an eighth-grade history text and several methodological guides for teachers, begins with a brief introductory outline of pre-revolutionary Russian historians and then reviews the fluctuating doctrines of history that have followed on the heels of the ideological and political tides since 1917.

It took the Bolshevik Party seventeen years to re-establish history as a separate subject of instruction in schools and universities. Not only time but terror were needed to root out the original convictions of the Old Bolsheviks. Their internationalism, for example, in which

history was suspect as a school of bourgeois chauvinism, had to yield to a new Soviet nationalism that sought at least in part to establish its legitimacy on older Russian traditions of strong state power and central rule. In education a progressive philosophy that experimented with a variety of programs had to be denounced and replaced by the return to a conventional subject-matter curriculum.

It was in 1931 that the Commissariat of Education of the Russian Republic first announced that history would again be taught in certain types of schools and that uniform textbooks were being prepared. But the real turning point came in 1934: the Party itself, after criticizing the quality of history teaching, prescribed the new programs grade by grade and instructed the authors of new texts to be adopted throughout the Union exactly how to select and present the material. In March 1936, an open competition was held, offering substantial cash prizes for an elementary textbook in Russian history. A group project under the editorship of A. V. Shestakov emerged victorious from forty-six entries, and in 1937 their text was required reading in grades three and four. At the same time the Stalinist constitution became a subject of instruction in grade seven, and therewith the social studies, formerly the most important subject, were finally dropped from the curriculum of all schools. History texts for the last three grades of the ten-year school were not published in massive editions until 1940. They were written by a group of academicians under the general editorship of A. M. Pankratova, one of the most influential Stalinist historians, who took as her model the official *Short Course of the History of the Communist Party* (1938), a book in which legend

and history, propaganda and philosophy are blended together.

The establishment of history as the main subject of ideological education was not accomplished without mobilizing Soviet historians for a major campaign against M. N. Pokrovski, an Old Bolshevik and historian who was Lunacharski's deputy in the Commissariat of Education. Pokrovski's *A Very Brief History of Russia*, published in 1920, was highly praised by Lenin, who recommended that it be used as a textbook. So it was until 1934, in both higher educational institutions and the upper grades of the secondary schools, there often as part of social studies. During that period Pokrovski's conceptions and even his terminology dominated the teaching and writing of history. He radically debunked all expressions and symbols of nationalism, the historic role of individuals (Peter died of syphilis, Catherine was a slut, etc.) and central state power, and he replaced them in good Marxist fashion, or so he thought, with economic forces and the class struggle. In 1934, however, his views were denounced by the Party, with the historians following suit. They mounted a severe attack on Pokrovski and his school that culminated in two volumes of articles in 1939 and 1940, written by members of the Institute of History in the Academy of Science.

The upshot of this campaign and the new texts that followed was a partial rehabilitation of Russian nationalism. Certain tsars and military men again became symbols of patriotic pride, the historic role of great individuals was generally acknowledged, and the continued need was demonstrated for centralized and unrestrained state power in building an invincible fatherland. Seen in this light, history clearly vindicated the power and the glory that Stalin had bestowed on his own person.

Yet in 1956, the wheel swung round once more and this time it was Stalin's turn to be debunked. Historians and educators discovered, thanks to the un-failing ideological alertness of the Party, that the cult of his personality had led to dogmatism, authoritarianism and formalism in education. Teachers taught and students memorized what was in the textbooks; independent thought was stifled. The Pankratova series and other texts were withdrawn because they were discovered to have erred in slighting the historic role of the working masses as well as that of the Party in the building of socialism. Moreover, by overloading histories with an excessive number of dates, facts and quotations from Stalin, the authors had helped to remove the school from the tasks of contemporary life to which the insights of Khrushchev and his educational reform of 1958 once more returned it. Soon after, Pokrovski's reputation as a Marxist historian was re-established. Even though he was still blamed for certain errors, his merits of having overcome bourgeois historiography and of having laid the basis for the Marxist science of history were beyond question.

These are the major phases and turning points in the writing and teaching of history which Bushchik covers in considerable detail. Among other sources, several state archives are used, a very recent phenomenon in Soviet educational scholarship, which before destalinization leaned heavily on quotations from the highest authorities, Party resolutions and a few authors who were officially endorsed. Yet though the documentation is more varied and interesting, it is still employed with extreme caution so as not to break the mold into which the Party has cast the history of the USSR, including the history of Soviet pedagogy. This caution is reflected

also in the author's style, which is wooden and spiritless. The acts and policies of public figures, their merits and "mistakes," must be described in official formulas and clichés if ideological correctness is to be achieved—at least for a time. For more than this no Soviet author in the social sciences can reasonably hope. When the wheels of dialectics begin to turn again, today's truth may be crushed so that the higher truth of tomorrow may flower in its place.

A Western reviewer will doubt that Soviet historiography is lifted to greater heights by every major change in the Party's ideological position. Nor is he convinced that every time the texts are rewritten, the historical insight and learning of the students are deepened. This book itself gives frequent evidence that the shortcomings criticized in certain texts were eliminated only to be replaced by different ones in the new books. Furthermore, the laments of educators remain unvaried and indeed predictable: instead of acquiring a concrete knowledge of history and society, students learn in the main to manipulate a system of formulas and phrases.

Attention must finally be directed to distortions of the historical record. These result less from outright falsehoods than from partial truth. Bushchik is at times silent where the historical record would require him to speak, and he spreads the veil of anonymity over persons and events that should have been identified. A glaring example is the treatment of N. K. Krupskaya in the educational context of the 1920's and the early 1930's. As Lenin's "friend and comrade-in-arms," as she is officially known, Madame Krupskaya exerted a very great educational influence during that period. She was head of the pedagogical section of the State Science

Council within the Narkompros, and she controlled the approval of textbooks and school programs. She also sponsored progressive educational ideas and journals. In the mid-thirties her influence waned, and after her death in 1939 her name was rarely mentioned. When Stalin decreed the return to educational traditionalism, her work, so intrinsically a part of the educational thought and practice of the early period, was obviously compromised. But when destalinization made possible again a more tolerant and kinder view of that period, Krupskaya's complete works were published by the Academy of Pedagogical Sciences and her reputation rose even higher than it had been during her lifetime. She is today regarded as a pedagogical sage virtually beyond criticism.

These fluctuations of opinion place the educational historian in a difficult position. He must criticize the experiments of the 'twenties because the Party resolutions condemning them still stand. Besides, the Party retains in essence the conventional views and the educational system Stalin introduced. At the same time, an historian must take note of the recent rehabilitation of formerly denounced educationists and of the return to Leninism officially proclaimed by Khrushchev. In the case of Krupskaya, Bushchik barely mentions her when he exposes in detail the "mistakes" and "bourgeois influences" in early Soviet education. When he has done with this, he describes her work in very general terms that exempt her from those specific criticisms. Thus he is able to end by praising her "exceptional merits in developing the principles of Communist education."

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FOUNDATIONS OF EDUCATION.

Edited by George F. Kneller.

New York: John Wiley and Sons, Inc.,
1963, 650 pp. \$6.95.

Intended to present "education as a vital element in American culture, like religion, literature, science, politics, English, or any other intellectual component," this book sets out to be more generally informative and challenging than most introductions to the teaching career. It thus represents a welcome tendency (still feeble, unfortunately) to rescue professional "educators" from the limited perspectives of so many of their fellow-journeymen. How can that be better done than by associating humanistic considerations or personally challenging evaluations with the daily experience of their jobs, the application of the various social sciences to teaching, and indeed the formal studies of the future teacher?

Thus envisaged, the orientation of Professor Kneller's editorship is admirable. His general purpose appears to be indicated by the division of the book into four sections, after a truly excellent historical preamble written by Prof. Edward Mehl. These are: Part I, theoretical foundations (philosophy, mainly); Part II, social foundations; Part III, foundations for a science of education; and Part IV, "the concerns of education," which this reviewer imagines must mean the administrative and expanding context of education.

The 19 chapters within this framework vary greatly, both with regard to the fulfillment of the editor's general purpose, and with reference to the quality of the scholarship revealed in them. The shrewd interpretive insights and farseeing direction-pointing of the historical introduction are well taken up again, for example, in wider questions raised by Dr. Lindman on school organization and administration, by Dr. Bar-

low in his chapter on vocational education, by Drs. Dickerman and Sheats when talking of extra-curricular learning and adult education, and by Dr. Kazamias in a quite distinguished concluding chapter on education in international perspective. Not only do these writers provide a rich fund of information to support their assigned topics; they must also be given well-deserved credit for communicating directly to American students in straightforward language the complexities of the American scene which so many of them are only half aware of, and at the same time challenging them to pick out and justify the decisions of the present which will enhance or blemish the future of the United States as a civilizing nation. In other words, these authors transcend the pettiness of many classroom preoccupations and the parochialism of much unreflecting pedagogical automatism propounded drearily in allegedly "all-American" or even universal and perennial terms. At the same time they are pertinently talking to teachers about teaching, on the basis of their own experience of the teacher's role in the United States.

Within the narrower purview of the United States' traditional or topical pre-occupations, there are also good and thoroughly up-to-date chapters on education and the national economy (Dr. Fawcett), on religion and public education (Dr. Kircher), and on education and the public law (Dr. Simmons). All of these bring the young student into the very arena where the future of the American educational ethos (to say nothing of the schools, pupils, and the whole teaching profession) is being tested by ordeal. A small criticism that might be ventured here concerns a tendency to underestimate the immense and intense change going on throughout our lives and assumptions in consequence

of the developing second phase of the industrial revolution—the phase of its application to social (rather than economic) need and opportunity.

The whole orientation of life—let alone the functions, status, and communicative power of teachers—is undergoing such a transformation that the relative positions of teacher and taught, of home and school and work and leisure as we know them, may be unrecognizable before the teachers we are at present training have finished their careers. The United States (outside the sheltered oasis of the schools), the Soviet Union, and the developing countries are the workshops *par excellence* of new notions, new mass-production or individualized "do-it-yourself" methods in education, and new kinds of link between real education and living. Little indication of this creative turmoil disturbs the tranquil pages of this book; and few indeed are the bibliographical references even to American writing on these concerns. One of the first duties of any foreign observer of the American scene is to acquaint himself with the restless purpose and reorientation for a better life that characterize "the American way of life" at its best—not inertly resting on "pluralism" or "decentralized responsibility" or bland fellowship, but empirically building a new corporate understanding of life out of *complementariness* (i.e., *constructive difference*). What a pity, therefore, that this book offers young America such a static, pedantic, and pigeon-holing impression of the social sciences.

In this area, chapter 13 on the sociology of education is the best, though it does not deal much with sociology as generally understood and pays more attention to the social psychology (in rather anecdotal fashion) of the classroom and its immediate milieu. However, the chapter on psychology is more

jargon-ridden than usual, and succeeds in making the simplest statement ponderously platitudinous. Quotations from advanced research are here and there placed close to pedantic but homely dicta—e.g., that research shows first-graders can actually be taught geometrical concepts (as though we didn't all know they play games with a triangular, circular, or square base!). Elsewhere the author takes a whole page to itemize (from another text) 14 solemn samples of science such as the following: "Meaningful materials and meaningful tasks are learned more readily than nonsense materials and more readily than tasks not understood" (p. 395).

The chapter on the curriculum (28 pages long) is a masterpiece of sententious superficiality which could be of great danger in its emphasis on community interests (e.g., p. 458). What is the community? Are today's bland assumptions all acceptable? This chapter seems undisturbed by current American and international questioning, or by the businesslike curriculum studies that might have given the author something concrete to work on.

We come now to the important philosophical section—4 chapters written by Professor Kneller himself. These chapters are so different in character that they might have been prepared for different books. Chapter 4 on contemporary educational theories is smooth, clear, and to the point; but even so the author does not keep to the same philosophical categories which he adopted in Chapter 3, nor does he group philosophical schools in recognizably homogeneous families of thought or practical consequence. It is particularly disconcerting to be faced with a division of all philosophy into "idealism, realism, and pragmatism"—above all when the classic distinction between idealism and realism is not clearly stated, but actu-

ally seems to be confused in places where the popular notion of "realism" supersedes one which was good enough for Aquinas, Abelard, and such of our contemporaries as Bertrand Russell. In any case, what is the point? Idealism, realism, arguments about "faculty psychology" and the like have their undoubted historical value; but so have empiricism (evidently subsumed under pragmatism), utilitarianism, agnostic humanism, and materialism. Where do they come in? Where are the results of them for the educator and the educand? How is knowledge arrived at? How are judgments made? What are the pivotal points in any discussion of authority, obligation, responsibility, equality, and so on? Perhaps we look in vain, because on p. 71 Professor Kneller recommends "a knowledge of philosophy" when he evidently requires "the use of philosophy". Though he has invited us to think of philosophy (within education) as a purposive element within the American tradition, we are left mainly with an item in the curriculum, with its categories and definitions not always clear enough for the student.

Bibliographies are large, sometimes excellent, sometimes indiscriminate. There is a very good index.

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WHERE, WHEN AND WHY.

Martin Mayer.

New York: Harper and Row, 1962.
xiv + 206 pp. \$3.95.

This is a pretentious little volume, marred by inconsistencies and contradictions, and cheapened by name-calling and other affronts to good taste, which was written by a free-lance writer with an undergraduate major in economics. In it he undertakes not only to

tell what is right and what is wrong (chiefly the latter) with all aspects of the social studies in the elementary and secondary schools but also to characterize the present state (found to be quite sad or worse in about half the instances) of the parent disciplines of anthropology, archeology, geography, history, political science, and sociology as well as economics. And for added good measure, Mr. Mayer also passes judgment on the fields of educational psychology and sociology ("disreputable studies," p. 5), teacher training (said to be in a state of "total inadequacy," p. 178), the superintendency ("reduced . . . to the level of municipal and state politics," p. 5), the NEA (it "hates to embarrass superintendents," p. 149), and some of the newer developments in the teaching of mathematics and science in the lower schools (of which the author is, on the whole, quite uncritical and probably overly hopeful).

Only a jury made up of scholars in history and the social sciences whose credentials as scholars are not suspect, with each individual speaking for his own discipline alone, would be competent to say whether or not, and if so in what respects, Mr. Mayer's largely unflattering evaluations of the state of the parent disciplines are valid. Until such a jury has been heard from to the contrary, however, it seems to this reviewer the better part of wisdom to regard as pretentious much of that sizable portion of *Where, When, and Why* in which the author deals with the state of these disciplines and their derivatives in the lower schools.

It seems apparent that Mr. Mayer's book may imply too much in still another sense. Both its subtitle, "Social Studies in American Schools," and the claim made on the jacket that it is based on an examination of "the status of the teaching of the social studies in our

schools" will probably suggest to most readers that Mr. Mayer's appraisals are at least reasonably valid for the generality of our lower schools. It also seems likely that this belief will be strengthened by the prominence which both the publisher (see outside jacket) and the author (see his first three pages) give to the fact that *Where, When, and Why* is based on a report submitted by Mr. Mayer to the American Council of Learned Societies and to the Carnegie Corporation.

Actually, as nearly as this reviewer can estimate, Mr. Mayer's direct observations of what is going on in social studies classrooms were made in no more than about fifty schools. Mr. Mayer does not tell how many elementary and secondary schools he visited for purposes of making an intensive inquiry into what is going on in social studies classes, but he does make clear that the way they were selected ("I was looking for the best teachers I could find," p. x) did not make them representative of the total universe of our lower schools. Mr. Mayer also notes that he devoted less than seven months to the enterprise, that his procedure was to visit universities as well as elementary and secondary schools, and that some part of the half year or so was spent in scrutinizing textbooks, films, and other instructional materials used by social studies teachers. He weaves the names of a dozen or so professors and their universities into his discussion in ways which imply that he visited these persons on their home grounds—visits which, if actually made, materially reduced the amount of time left for visits to the lower schools. Similarly woven into Mr. Mayer's discourse are the names or place locations of about forty elementary and secondary school teachers or schools in some fifteen of the fifty states. All in all, as said, it seems reasonable to infer that the di-

rect observations reported in the pages of *Where, When, and Why* were made in fifty or fewer schools. To whatever extent this and the other circumstances just noted are true, it seems unwarranted to imply that Mr. Mayer's observations hold good for the generality of the more than 120,000 elementary and secondary schools in this country.

As an example of what seems to this reviewer to be among the more serious contradictions in Mr. Mayer's book, attention is invited to p. 39 where, in speaking of "critical thinking" and of "good citizenship" as goals of instruction, he says, "Educationally, neither is worth a hoot in hell," and to p. 99 where we read "Anyway, as a practical matter, 'citizenship' is a hopeless goal for instruction," in contrast to p. 153 where Mr. Mayer appears to justify a species of falsification-of-history-through-omission on the grounds that to do so helps to promote good citizenship:

No American history text devotes as much as one percent of its bulk to the Philippine insurrection, the military intervention in Panama, Mexico, Cuba, Haiti, the Dominican Republic and the Soviet Union, all put together. The Mexican war is never seen as a classic grab of territory. The fact that it is only the United States which has used atomic weaponry (or napalm bombs) to kill people must be blotted out from discussions of disarmament negotiations in the problems class, as it has largely been blotted out of the national consciousness. (So has all recollection of the Pilgrim Fathers praying for smallpox to strike the Indians even more severely.) Nor are these hypocrisies unfortunate. Children should think well of their country; and given the universal standards in these matters the

United States has on the whole behaved over the years with great decency and generosity. On utilitarian grounds, too, it can be argued that a magnanimous self-image is more likely to make people magnanimous in the future.

Not only contradictions but also several instances of a species of inconsistency detract from Mr. Mayer's work. He seems not to have decided to whom his book was being addressed. To illustrate, at one point he confides in a parenthetical aside that one of the persons who played a prominent role in the history of India was Cornwallis—"the same Cornwallis, incidentally, who surrendered at Yorktown; Britain in the eighteenth century was not exclusively concerned with the American colonists" (p. 21). At other points in his book Mr. Mayer employs such words as metastasis, solipsism, and chiaroscuro. It seems to this reviewer that terms such as these are likely to be puzzling to most of the persons who will not feel themselves affronted by what Mr. Mayer remarks in his aside.

Name-calling and other infractions of the canons of good taste appear at scattered points in the volume. The efforts of a certain school of sociologists are characterized as "consistently simple-minded" (p. 133). Reference is made to professional educators of a certain persuasion as "the well-intentioned dumb-bells of the last generation" (p. xii). To make such-and-such a statement is "to dribble from the mouth" (p. 122).

Despite the defects to which attention has been directed in the preceding paragraphs, there is much in *Where, When, and Why* which seems to this reviewer to be astute. In respect to a sizable proportion of these many instances of seeming sagacity, however, nagging doubts

persist—how much of what the author so confidently asserts or implies is one warranted in believing, and how much should one discount to what degree? These doubts are induced by the fact that in a number of instances in which he deals with matters of which this reviewer has at least a little of what might pass for expert knowledge, Mr. Mayer is either grossly in error or is guilty of asserting something little if at all better than a half-truth. An example of the former is Mr. Mayer's sweeping indictment of the NEA in connection with its behavior respecting teachers who in attempting to reform the curriculum get into difficulty with school boards and superintendents: "The grievance procedures of the National Education Association (the 'defense committee') are usually not available to protect teachers in this kind of trouble, because the organization hates to embarrass superintendents, who are members, too" (p. 149). This reviewer has been familiar with the work of the said defense committee since its inception, he served actively as a member of this body for six years, and he has remained in close touch with it ever since; any honest and scholarly scrutiny of the history of the committee will make it only too clear that Mr. Mayer was either innocent of any competent knowledge of this history or chose deliberately to mislead his readers. An example of an assertion which is partly true but mainly misleading is this:

Teacher preparation in the United States is insufferably generalized. It rests on observation—usually superficial observation—of what good teachers seem to do. Thus, since most good teachers are ingenious at pointing out the relevance of a study to what is in today's papers, teacher-

training institutions build a philosophy around contemporaneity; since most good teachers know through peripheral vision the social relations and psychological difficulties of their students, teacher-training institutions offer techniques of sociodrama and psychodrama by which imperceptive teachers are supposed to be able to find out what gives in the buried life of the classroom. Emphasis has been placed precisely on those areas where techniques cannot replace insight; and the areas where technique is valid, in the presentation of material to be learned, have been almost completely neglected (pp. 179-80).

If the reader knows the respects in which the requirements of accuracy force him either to qualify or to discount altogether the assertions set forth in this paragraph, there is something of potential benefit for him in the passage. But if he has little or no prior expert knowledge of what is actually going on in teacher preparation in the United States, the reader will be badly misled if he believes all that is said or implied in the paragraph. This raises the question of how valuable to nonexperts any book can be if its readers must have at least some prior expert knowledge of its subject matter in order not to be misled by it. To a considerable extent *When, Where, and Why* is such a book so far as much of its treatment of pedagogical matters is concerned. It may or it may not be such a work in those of its parts which treat of the disciplines parent to the social studies, but this is for scholars in these fields to say.

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THE LEARNING PROCESS AND PROGRAMMED INSTRUCTION.

Edward J. Green.

New York: Holt, Rinehart and Winston, Inc., 1962.

x + 228 pp. \$4.00.

This book, according to the author's preface, represents an attempt to bridge the "information gap" between the experimental psychologist and the teacher. Mr. Green hoped, in other words, to demonstrate to the experimenter the challenge of applying laboratory methods of behavioral control to the problems of education; and, at the same time, to inform the teacher of the "really useful concepts and techniques of control," that might be used in the classroom. To have accomplished well either of these tasks alone would have been no small achievement. To have undertaken both at once, in a text of only 214 pages, was perhaps over ambitious. In any case, the result is a book of uneven texture. Clear and lucid introductions to basic concepts are interspersed with highly technical theoretical discussions, difficult to read even for the psychologist. Detailed and practical descriptions of procedures for writing and editing teaching machine programs stand alongside speculative considerations of the possible applications of higher level conditioning procedures. All of this makes *The Learning Process and Programmed Instruction* at once fascinating and frustrating to read—and very difficult to review.

The book is rather clearly divided into two parts: the first on the learning process, the second on programmed instruction. Despite the author's intention to demonstrate the close relationship between laboratory experimentation and instructional procedures, the two parts stand largely independent of one another. The first five chapters set forth and explore certain principles of "rein-

forcement" or "operant conditioning" theory as it has developed in the animal laboratory. There is very little discussion in these chapters of applications of the conditioning procedures to practical problems of human learning and teaching. The last five chapters deal with programmed instruction. Teaching machines are considered "the first practical application of laboratory techniques to education," and reference is made throughout these chapters to certain of the principles of behavioral conditioning developed in the first part. But the bulk of the discussion is devoted to programmed instruction less as a theory of instruction with many possible applications than as a specific technology with problems of research and development peculiar to itself.

The theoretical discussion in the first section is conducted at a level of sophistication considerably higher than the typical "popular" introduction to programmed instruction. As a start, the philosophical assumptions underlying the attempt to apply operant conditioning techniques to human behavior, are stated unequivocally. Beyond this, terms are defined carefully; fine distinctions are drawn between related conditioning procedures; and competing theoretical interpretations are considered throughout. This very sophistication, while it can only be commended from a scientific point of view, is for the non-psychologist a rather mixed blessing. On the one hand, it offers him an introduction to the principles of operant conditioning that is both precise and sensitive to the effects of fine variations in stimulus conditions and reinforcement contingencies. On the other hand, it often makes heavy demands upon a knowledge of psychological concepts and vocabulary that he is unlikely to have.

The chapter called "Definitions" is a

case in point. Here Green reviews and evaluates various definitions of "stimulus" and "response," together with alternative measures of "response strength." While such explicitness of definition is surely necessary to advanced scientific work, this discussion, placed as it is, plunges readers into some of the most complex questions of theory and technique before even the simplest of laboratory conditioning procedures have been described. Added to the difficulty of such individual sections is an overall organization that is unclear and often confusing. The same question may be discussed in several different sections, and the subheadings provide no reliable guide as to content. This makes selective reading, one solution to a text of such variable difficulty, virtually impossible.

Despite these complications, these theoretical chapters have much to offer the reader who will stay with them. Green is exceptionally skillful in the simple exposition of basic procedures and concepts of operant conditioning. The paradigms for respondent and operant conditioning, for secondary and negative reinforcement, and for other basic procedures are stated clearly and succinctly, with appropriate use of diagrams for clarification. The distinctions drawn between positive and negative reinforcement, and between negative reinforcement and punishment are fine and complex, yet nevertheless clearly communicated. As more complex conditioning procedures are introduced, the language tends to become more technical, and the basic exposition—of schedules of reinforcement, for example—somewhat too abbreviated. The later theoretical sections, therefore, will not make easy reading for the non-psychologist; while the psychologist may be disturbed, here as elsewhere, at Green's tendency to refer

to the existence of evidence in support of his conclusions without actually citing very much of it.

Nevertheless, a number of important points are made. Of particular interest is the author's insistence on the central role of discrimination learning in education. Green's point here is that the child, by the time he comes to school, already has a large repertoire of responses at his command. Much of school teaching, as a result, is concerned not with teaching the child new responses, but with teaching him the occasions on which it is appropriate to make responses already in his repertoire. This is an important point, and one that is rarely made in discussions of the relevance of laboratory learning theory to education. Unfortunately, having made the point, Green himself largely ignores it when he comes to the discussion of programmed instruction, and insists in a later chapter on the need for the teacher's learning more about the processes of shaping up new responses, not at all on his need to learn about discrimination training procedures.

Interspersed throughout the theoretical discussion are sections in which Green attempts to compare operant conditioning with other learning theories—Hull's and Guthrie's in particular. The purpose of these comparisons is not clear to the reviewer. At some points they seem to be a bow in the direction of completeness—even Freud is briefly mentioned in the chapter on motivation; at others, the expression of Green's own personal attempts to reconcile conflicting theories. As the reflections of a colleague committed to operant conditioning theory and procedure, these discussions may be fascinating to psychologists. But to the non-psychologist they will probably be little more than confusing, especially since the competing theories are never explicated in full.

From the educator's point of view, the space devoted to these theoretical searchings might better have been given to a fuller consideration of practical applications of the various operant conditioning procedures in the field of education. Only in the chapter on motivation is there any sustained attempt to move out of the realm of animal laboratory into the classroom. There the effects of aversive control, both punishment and negative reinforcement, are considered in a manner at once consistent with rigorous psychological formulation and relevant to a fundamental educational problem. More such discussions, together with the use of frequent examples from education in the explication of operant training procedures would surely have made the book both more readable and more informative for educators. It might also, incidentally, have served to better point out to psychologists the many educational problems to which their theories and techniques might be applied without the sacrifice of scientific rigor.

The second part of the book opens with two chapters of general background on the nature of programmed instruction. Defined as essentially an interaction between two persons in which "there is an intent on the part of one member to modify the behavior of the other," (p. 118) programmed instruction is seen as differing from a live tutorial interaction in that the program cannot answer the student's questions, except insofar as these questions have been anticipated in advance by the programmer. Different kinds of teaching machines and programmed texts are described, and their uses, actual and proposed, are discussed. It is unlikely that the reader who has never seen a program will come away from these chapters with a very clear idea of what they are like. There are no examples of pro-

grams given; and the section which attempts to describe programs is weak, fading off into a largely irrelevant discussion of the nature of incentives for learning in our society as compared with Russia's. On the other hand, for the slightly more informed reader, Green's discussion of the nature of programmed instruction and its implications proceeds at a considerably more sophisticated level than most.

Chapters eight and nine, called "Techniques of Programming" and "Evaluation", maintain this level of discussion, while turning largely to the more practical problems associated with preparing and validating programs. Green first discusses the differences between Crowderian or "branching" programs and Skinnerian or "linear" programs, putting major emphasis on the multiple-choice versus constructed response features of the two systems, but denying any essential difference between them in the nature of the conditioning processes involved. While the brief paragraph devoted to the specification of terminal behaviors for a program makes the process seem far simpler than this reviewer finds it in practice, Green's emphasis on the need for sound and extensive knowledge of the subject matter is indeed well founded.

The sections on techniques for writing frames, while not offering an exhaustive listing or categorization, will probably prove to be among the most valuable portions of this book, particularly for persons actually engaged in programming. The discussion of the role of linguistic habits as prompts is especially fine, and the consideration of possible uses of "fading" or "vanishing" is of similar quality. Green's proposal for a measure of "step size" or "program density" independent of student performance on the program is also of particular interest. The investigations he

reports relating this independent density measure to performance both on the program itself and on a criterion test suggest that the measure will indeed prove a valid and useful one—at least for the type of verbal programming with which Green is centrally concerned.

"Program evaluation" for Green consists of both the process of using feedback from students to revise the program and of field trial of a "completed" program. He stresses the need for long-term research on the effects of programmed instruction, and the desirability of using the individual student as his own control. Much of the discussion of evaluation is included in a semi-anecdotal description of his own experiences in developing and testing programs in medical subjects. Honest about difficulties and failures, yet optimistic about ultimate success, this report is probably more valuable, given the current state of knowledge in the field, than a more formal description of "ideal" evaluation procedures would have been.

The final chapter discusses problems associated with the production of machines and programs and their use in the schools. The problems range from costs and over-persuasive advertising of teaching machines to disruption of grade sequence and grouping as a result of long-term use of programmed instruction. In keeping with the philosophy expressed in the opening chapter, Green has little sympathy for those who object to programmed instruction because of its connotations of "brainwashing" and "control." Programmed instruction is, in his view, simply an efficient form of teaching. Thus, he says, "If one objects to this technique of instruction on the basis that it teaches more efficiently, one basically objects to teaching" (p. 205). In general, the tone of this closing chapter is cautious, yet

optimistic. Programmed instruction has yet to be put to extensive test. There will surely be many problems encountered along the route. Yet Green seems convinced that when the air has cleared, when the fear of and fascination with gadgetry and "automation" have worn off, programmed instruction will emerge as an effective application of laboratory techniques in the classroom.

Any summary evaluation of "The Learning Process and Programmed Instruction" must be made with the question of audience clearly in mind. There are sections to interest the educator, others for the programmer or psychologist. Some sections may prove valuable for all three groups, but probably no single reader will find all of the book interesting and profitable. In addressing so wide an audience, Green has necessarily sacrificed some of the unity and organizational coherence his book might otherwise have had. Yet he has much to say about programmed instruction that is both important and well considered. To the extent that he has communicated some of these ideas to his several audiences, Green will have indeed contributed to the bridging of the information gap between educators and psychologists.

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IMAGINATION.

Harold Rugg.

New York: Harper and Row, 1963,

361 pp. \$6.95.

"What is the nature of the act of creative thought when, after prolonged confusion, in one brilliant moment there is a sudden veering of attention, a consequent grasp of new dimensions, and a new idea is born?" Thus Harold Rugg states the goal of the search, which en-

gaged him full-time for eight years after his retirement and is based upon a lifetime of work prior to retirement. The results of the quest make exciting reading. As in a mystery story information from well-known and unexpected sources is pieced together slowly. The book imparts a feeling of imminence and after having been led to the brink by many roads the reader may come to expect the "blinding flash." It never came to this reader.

The book is a synthesis of many diverse threads culminating in seven theorems. In essence these theorems spell out the conditions which favor creative insights. 1) Insight follows only after long conscious preparation succeeded by an interlude of non-conscious "work." 2) The act of thought involved in creation includes a feeling mood of discovery and a thinking mood of verification which are parallel to 3) two ways of knowing; namely, "an inside identification with the object, and an outside measured observation of it" (p. 291). The spark of insight occurs in the twilight zone between the non-conscious and the conscious mind. The antechamber, called the transliminal mind, is the portion of the non-conscious continuum which is free from censorship. 5) The creative act is autonomously formed below the threshold of awareness by a patterned process. The "forming process" follows the principles of a) unity, order, and organization; b) parsimony; and c) functionality. 6) Closely related to the notion of the transliminal mind is the idea that the "creative climax" involves the "off-conscious mind of relaxed concentration." This concept is derived from the wisdom of the ancient East; namely, Taoism, Zen Buddhism, and Yoga, along with notions of non-conscious averaging of perceptual events proposed by Western behavioral scientists such as Ittleson

and Ames¹ and Helson,² plus notions of feedback coming from the cyberneticists such as Wiener.³ 7) Human symbolic acts are of two types: "a) felt-thought through the gesture-symbol, b) verbalized-thought through the name-symbol" (p. 304).

These theorems are presented in the concluding chapter of the book which is a revised version of an orally presented paper. Although the threads are brought together here, the reader is struck by the fact that the fabric was not completely woven when the author died. The articulation of the various parts is much better than can be seen from this brief summary, and Kenneth Benne has used his editorial skill in footnotes to accomplish some invisible mending. But the book was obviously unfinished.

Emphasis on the theorems may give the impression that Rugg's thinking, if not the book, was tightly organized. The attempt at organization is helpful but much of what is fascinating about the book is the result of Rugg's wide-ranging divergent thinking. This carries the reader through phenomenological descriptions of creative acts (Part I. *The creative act: Descriptions and Distinctions*) and methods of plumbing the depths of creativity (Part II. *Ways of releasing the imagination*). In Part III (*Toward a theory of the creative imagination*) cybernetics, feedback, adaptation, homeostasis, the alpha rhythm as a scanning mechanism, determining tendencies, symbolization, etc., are

¹ W. H. Ittelson and A. Ames, "Accommodation, Convergence and Their Relation to Apparent Distance," *Journal of Psychology*, 1950, 50.

² D. O. Hebb, *The Organization of Behavior*. New York: John Wiley and Sons, 1949.

³ Norbert Wiener, *The Human Use of Human Beings, Cybernetics and Society*. Boston: Houghton Mifflin, 1950.

brought to bear on the problem. Many of the ideas in this section are interesting in view of recent neuro-physiological research on the reticular arousal system and its relation to attention and emotion. These data were not mentioned in the book.

A basic set of distinctions which Rugg uses throughout stems from the separation of thought processes into discovery and verification. Verification involves rational, conscious thought processes while discovery is non-conscious, often non-logical and is first felt and expressed in gestures of the body. It is here that Rugg draws heavily on the evidence for motor concomitants of thought.

The discovery-verification dichotomy raises problems. Evidently insight is always the result of discovery. Verification only comes afterwards. In some passages, however, verification is hard to distinguish from the phase of long conscious preparation which precedes insight. Rugg does not confront this problem directly, but it seems plausible to assume that attempts at verification often lead to new insights. If Rugg's distinction is interpreted as a conceptual convenience rather than an actual dichotomy the discussion is easier to follow.

The lack of complete clarity as to the difference between discovery and verification enters into Rugg's own presentation. Taken as a whole, the book will probably be seen by most behavioral scientists as a report of discovery. What is new is not the evidence which he cites from the writing and laboratories of others, but his way of synthesizing. He often writes, however, as if he had verified his insight by the scholarly work done in preparation. Presumably it was this work from which the insights came. Where, then, is the subsequent verification? I submit that the value of his synthesis has not been verified by his ap-

peals to authority for each bit of evidence he uses.

The behavioral scientist who takes the theory as a report of discovery will ask if the theory is in a form which will facilitate verification, i.e., do the theorems present testable hypotheses? Clearly, the terminology is not operational. When one attempts to state the theorems in operational terms difficulties arise and the upshot does not appear to be much that is new. If one extrapolates far enough, one can see that recent discussions of mediation⁴ and affect⁵ are at least compatible with Rugg's position.

The author has carefully culled the conditions which seem to him to exist in many instances of creative insights including artistic creations as well as scientific discoveries. However, these positive instances (Poincaré, A. E. Housman, Newton, Gauss, Goethe, Bertrand Russell, etc.) are never compared with negative ones in an attempt to elicit the unique conditions which lead to a brilliant insight. All of the insights he investigates are brilliant. One is struck by the possibility that many, if not all, of the conditions which he cites are present to some degree in what we might call false starts of the creative genius, and even in the "insights" of lesser men which may be totally useless and never get recorded. The difficulty lies in distinguishing between brilliant insights and the more mundane processes of everyday thinking. Rugg never makes this distinction.

Discussion of the conditions for the birth of the brilliant new idea is heady stuff for those engaged in intellectual pursuits. Some of the excitement gener-

ated in the reader of the book and some of the enthusiasm of the author stem from the feeling of being on the verge of learning how to insure brilliant insights from one's own thinking. Rugg is not carried away with the conceit and manages quite well to avoid the assumption, for instance, that because of his imagination, man is the measure of all things. Nevertheless, the present reader felt that the author's enthusiasm was a little greater than was warranted. The book set out in search of a very elusive quarry. When the trap was sprung and the quarry examined much that was anticipated was there, but something was missing. Perhaps it will always be missing. It is like looking for 'the cause' of some phenomenon. All the conditions under which the phenomenon occurs may be known and the skeptic may still ask what is the cause. As in the case of cause maybe it is illusory to look for the flash of insight.

The exact nature of what is missing in the book is difficult to specify. It has to do with the unique characteristics of the brilliant insight. Great stress is laid on the freedom from censorship of the transliminal mind. Clearly, the creative mind must be free from conventional restraints in order to discover unconventional concepts. At the same time, it must be reacting to some required characteristics of the situation. What constraints lead to the "sudden veering of the attention?" Freedom from conventional restraints cannot imply indeterminism. The creative mind must distinguish between the unproductive and the uniquely productive relationships among the elements. Otherwise we are left with the possibility that creative insights are mere chance occurrences which could happen to anyone but are of low probability. Since Rugg has started with the assumption that brilliant insights are unique and has not

⁴O. H. Mowrer, *Learning Theory and the Symbolic Processes*. New York: John Wiley and Sons, 1960.

⁵S. S. Tomkins, *Affect, Imagery, and Consciousness*. New York: Springer, 1962.

compared them with prosaic thoughts, the mystery still eludes us as to how the creative mind distinguishes the unique set of requirements which lead to the unique solution.

The idea of freedom is very important to Rugg as the critical element in the off-conscious mind of relaxed concentration. Freedom and the felt-thought characterize discovery as opposed to verification. He uses these notions in the last few pages of the book to take to task both educators and psychologists. He believes that most of what goes on today in education deals with logical verification and most of what is contributed by psychology is semi-psychology—"a psychology of conscious, verbal problem-solving" (p. 310). In his "imperatives for Education" he urges greater emphasis on the feeling and discovery side of the "whole human being." "We have had thinking, thinking, thinking of a hyperanalytical kind, but no understanding of the crucial role of the feeling which molds it into felt-thought and thereby brings about creative discovery" (p. 310). He stresses that educators have suffered from a lack of mastery, and suggests "that a first step in reconstruction is that we become master students of the conceptual foundations of the behavioral sciences" (p. 311).

As might be expected, in his "imperatives" some of his ideological biases become apparent. He suggests that his work leads to the conclusion that having built, under the Progressive Education Movement, "the School of the First Freedom—freedom from external restrictions... now we must build the school of the Second Freedom—that of the inner freedom of the relaxed, threshold-mind of intuitive discovery" (p. 311). One can only hope that those who attempt to build the school of the second freedom will think long and hard about the relationship between freedom

and restraint, and will not be misled by the ideological connotations of the word "freedom."

In brief, the book can be described as presenting stimulating material in an engaging way. The author has emphasized the intuitive aspect of thinking and discovery, and has adroitly professed this as an important consideration for educational theory and practice.

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TEACHER SHORTAGES AND
SALARY SCHEDULES.

Joseph A. Kershaw and
Roland N. McKean.

New York: McGraw-Hill, 1962.
(Paper) xi + 203 pp. \$2.95.

The title of this book is dull, but the subject is engrossing. Not for its own sake, in the case of most of us, but because it deals with the rather anemic lifeblood of public education in the United States today.

The facts adduced are depressing. The divergence between salaries offered mathematics and chemistry graduates in teaching and in industry grows. So does the surplus of trainees in men's physical education. If we insist on adhering to the conventional unified salary schedule, we shall continue to offer more than enough to attract persons in one field, while binding ourselves not to offer enough to attract persons in another.

"Things have been happening in the world which present salary schedules do not take into account.... There is a growing unreality about paying all teachers according to the conventional unified salary schedule. Moreover, this lack of realism about such schedules will get worse...."

To raise the average teacher's salary even by a mere \$2,000 would cost the

country something over three billion dollars a year. A drop in the bucket in our affluent economy, yes; but, as the authors put it, "with school bond issues often being defeated now, it is a safe bet that communities will not finance across-the-board increases sufficient to attract the desired persons to the scarce fields." It seems pitifully naive to continue to hope that if we only do better the things we are already doing the problem will go away.

Some day, when the products of today's inadequate schools control the country, they may perhaps agree to spend as much money on schools as on luxuries. But, as many of us ask when the question is that of the ability of the states to support education without federal help, dare we wait for the time when what theoretically can be done will be done?

The authors of this book are both economists. Their study was supported by Ford and conducted under the aegis of RAND. Their question was, "How can we most efficiently provide well-qualified teachers for [the] growing numbers of children?" Their basic propositions are that, though salary changes move only a part of the population from one line of work to another, they are the most effective instrument for dealing with teacher shortages, and are one of the few ways of influencing job choices which work without coercion and "with some precision." Perhaps because they brought to their study a strong faith in a free market in professional services their book provides from start to finish a powerful, partisan argument for the abandonment of unified salary schedules.

Early in the book the authors provide a summary of the role of salaries in the economy generally which is succinct and helpful, as is their sketch of the historical development and present place of

salary schedules in education. They have made excellent use of the already-existing writings on school salary schedules and shortages and have assembled convincing data from many sources, including a survey of their own. Their analysis of the present situation is authoritative and impressive. It deserves the serious attention of anyone interested in teacher supply and demand or in school salary policies.

On the other hand, where familiarity with schools or with the subtleties and complexities of teacher competence and teachers' attitudes are called for, their analysis often falls short. And, by the same token, their almost unqualified prescription of a "3-step schedule," not as a proposal to be studied or discussed but as a program to be adopted immediately, inevitably evokes skepticism in an educationist.

At four points in particular questions are likely to arise in the minds of those who know education well.

The authors, rightly concerned with the quality as well as the quantity of teachers, touch here and there on that topic. But their efforts seem to be defeated from the start, and the subject of quality is never brought to bear on the main line of reasoning. What can economists say in statistical terms about the quality of teachers? Throughout the key chapter on "Relative Shortages of Teaching Skills" the statistics and the conclusions deal entirely with "trainees," as they are called at one point, that is, persons who have formally prepared for teaching. Their question is, are the shortages different in the different teaching fields? The finding that mathematics, English, and women's physical education teachers are in short supply is established unequivocally. So is the finding that social studies teachers are "comparatively abundant," if the criterion is that of having completed a for-

mal preparation program or of being certified.

But obviously holding a certificate and being competent are two different things. The former condition may indicate only that the individual squeaked through a minimum number of low-level college courses of certain kinds. Most would agree, though, that for social studies teachers real competence would involve well-above-average intelligence, significant knowledge of history and other social sciences, and ability to arouse interest, to communicate to pupils, and to test. There would be disagreement as to the number of certificate-holders not competent to teach, but among social studies experts the estimates would be high. Indeed, it might be argued that the shortage of competent social studies teachers is even greater than that of competent teachers of mathematics. In that case the authors' statistics would be misleading indeed: salary schedules should, if anything, be changed in favor of the area where they now see an adequate supply. (If it should also be true that significant numbers of non-trainees are more competent to teach the social studies than are many trainees, revisions of salary schedules should take into account the estimated numbers of competent and potentially available non-trainees in the various fields.)

Teacher Shortages and Salary Schedules has a lot to say about ways in which the supply of certified teachers might be manipulated. But the question of competence is so central, and there is so much room for doubt about the adequacy of the present supply of any kind of teacher—even of teachers of men's physical education—that the assertion that there are "relative shortages" of competent teachers loses much of its weight.

The fact that the question of compe-

tence is illuminated little by available statistics does not warrant its being ignored. By intuition or otherwise the public must make decisions about it. Perhaps one should not ask an essentially economic study to enter into the realm of intuition. But one may criticize it for reasoning to a radical proposal for the introduction of salary differentials between fields on the basis of an assumption about teacher competence which is never made explicit and is highly questionable.

Second, in view of the fact that today nine job openings occur in the elementary grades for every six in high school, it is surprising that the authors felt they could concentrate their study so heavily on the secondary school supply. They give it as their impression that the supply of elementary school teachers is in fairly good shape. This is a view for which the only support seems to be the number of "bodies" who manage to end up in grade school classrooms every September. Studies in the colleges indicate, on the other hand, that the caliber of person entering elementary school teaching is on the whole somewhat inferior, and studies of the social status of that occupation suggest that its drawing power is likely to remain low for some time. As the authors of the study point out, one of the chief original purposes of unified salary schedules was to raise the status and morale of teachers in the grades. Thus it would seem that any discussion of doing away with that form of schedule should go out of its way to deal with the morale and staffing problems of the grade school.

Third, while the authors do mention team teaching, it is disappointing that so ambitious a study as theirs should in effect ignore the likelihood that it and other new staff deployment practices will radically alter the whole teacher manpower problem. It will be hard for

some educators to believe that their simple 3-step schedule is sophisticated enough to meet the needs of a forward-looking school system today.

But it is the matter of morale that causes the most opposition among teachers and educationists to departures from the unified salary schedule. The seven-page treatment of this subject is the fourth point at which the authors lay themselves open to serious challenge.

A passionate assertion by any group that a given change will damage its morale would seem to be self-validating, and the burden would seem to rest with whoever asserts the contrary. The Messrs. Kershaw and McKean dismiss the issue with little argument, some irrelevancies (e.g., that comparisons with the 1950's fail to prove differentials damaging), and a number of analogies from other kinds of bureaucracies. To the question, "Is teaching different from other professions so that it requires an 'unprofessional' salary structure?" they have little more of an answer than, "We think not."

Teaching the young is an art requiring a self-confident creativity on the part of the teacher which, in turn, requires high morale to a much greater extent than do most other jobs performed in bureaucratic settings. Thus threats to morale must be taken especially seriously. But teachers as a class tend already to be lonely, anxiety-ridden, and status-conscious. They feel vulnerable to unfriendliness or discrimination. They seem often to have chosen teaching for the security to be found

where competition is minimal and status differences are relatively few. Teaching is still less a profession than a looked-down-upon woman's occupation. And many teachers, especially married women, do not feel free to move from job to job with changes in the market, and hence feel exploitable. Thus morale should be high, yet is already low.

It may well be that salary schedules should be changed, so as to make the public schools more like universities or the telephone company. But such a move should be preceded by a careful and thorough study of the morale problem and weighing of the risks to morale involved in the change.

In spite of its shortcomings the book makes an important contribution and offers a proposal to be studied most seriously. It does demonstrate the dangers besetting the specialist in one discipline who lays aside his scientific armor—with its motto, "other things being equal"—and ventures alone, self-confidently but somewhat ignorantly, into that complex realm of public policy which is education. But it also demonstrates to any educationist dealing with an economic problem that he can profit greatly by calling on the special resources of economists. And it is thus an implicit reminder of the value for education of the rigorous, systematic study of matters educational by scholars in other disciplines.

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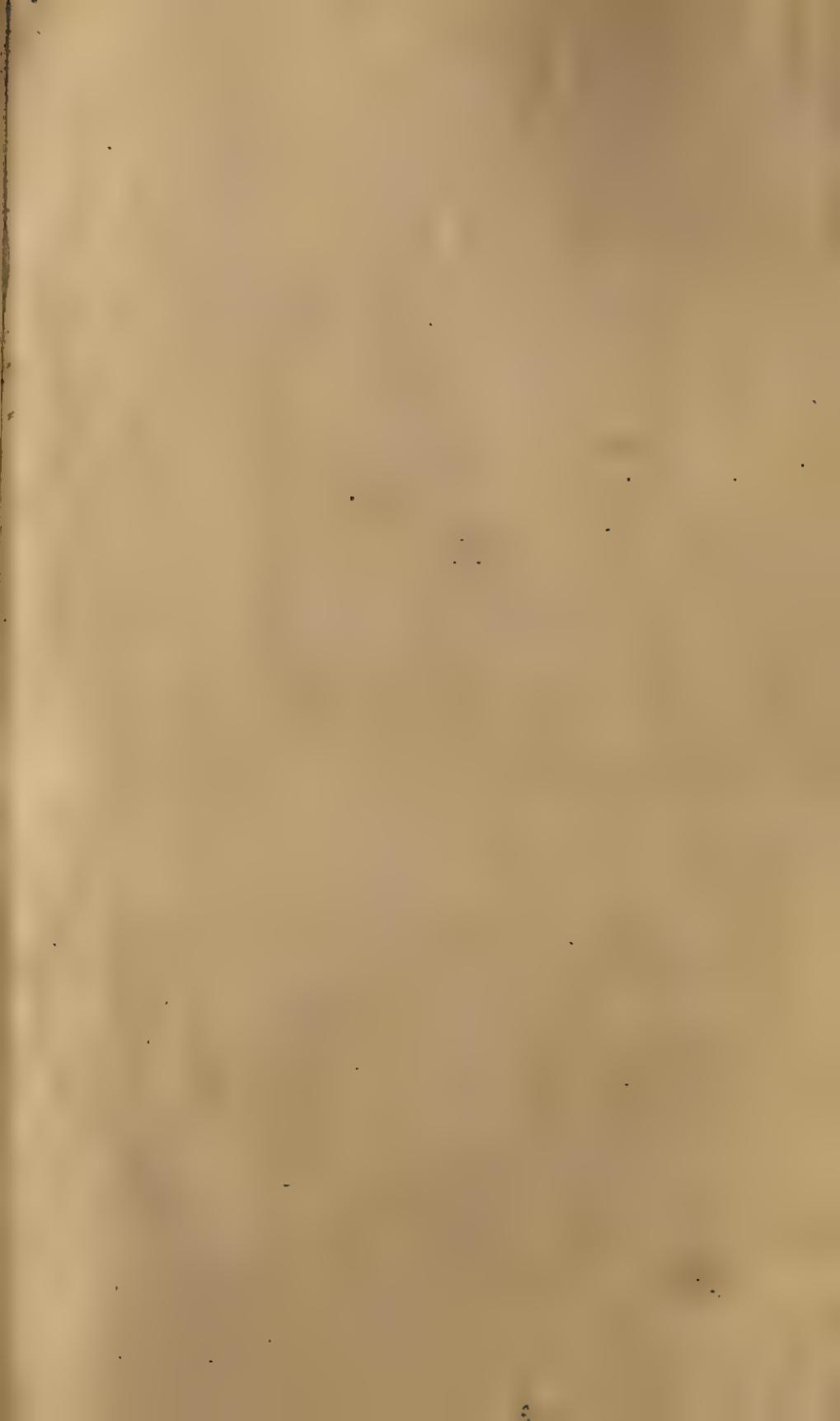
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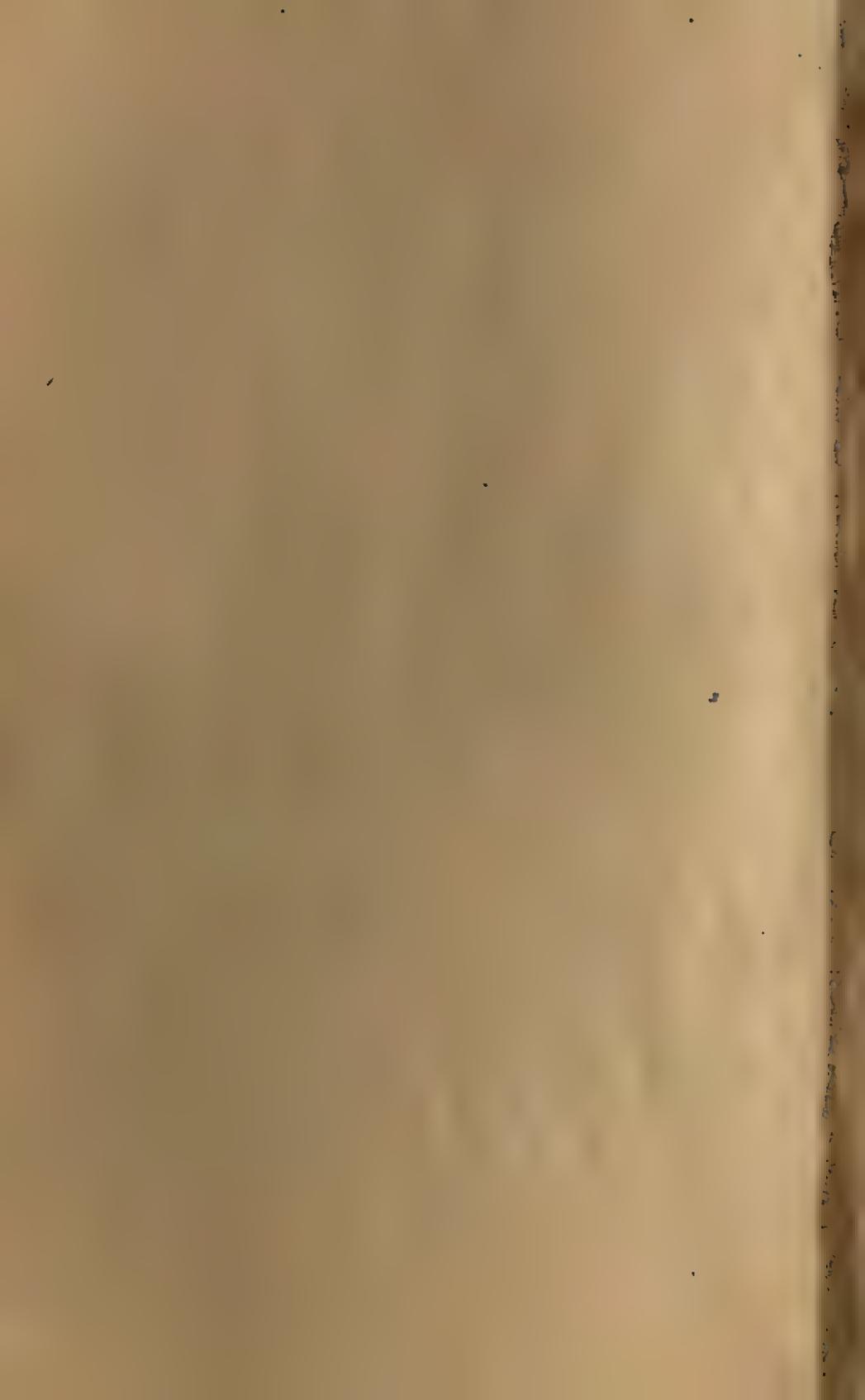
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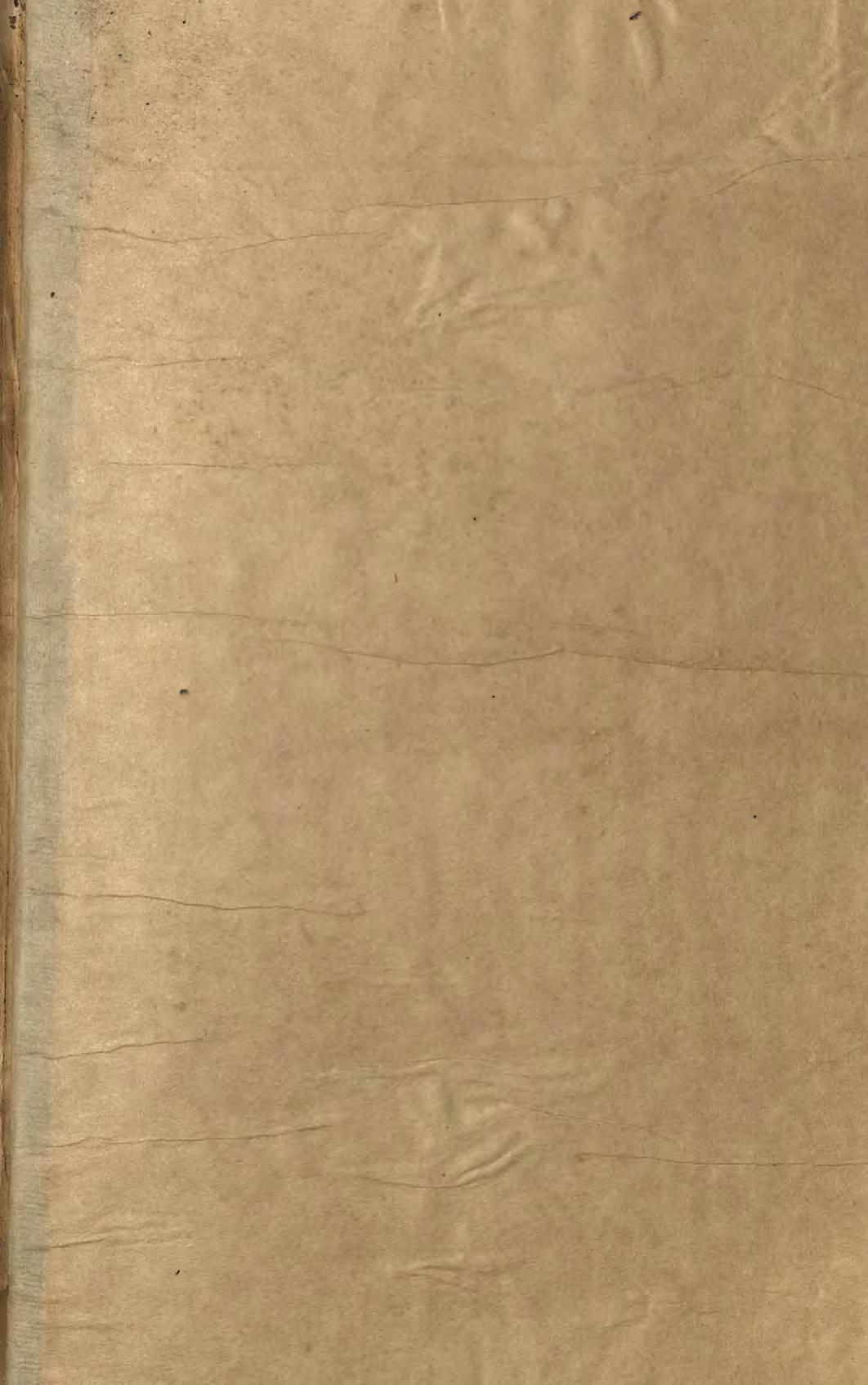
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